Waterman Moylan
Engineering Consultants

Traffic and Transport Assessment

SHD at Holybanks, Swords

March 2021

Waterman Moylan Consulting Engineers Limited

Block S, East Point Business Park, Alfie Byrne Road, Dublin D03 H3F4
www.waterman-moylan.ie

Waterman Moylan
Engineering Consultants

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1	March '22	Fernando Silva	J. Gibbons	

Comments

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1. Introduction

1.1 Introduction

This Traffic and Transport Assessment (TTA) has been prepared by Waterman Moylan to accompany a planning application to An Bord Pleanala for a proposed Strategic Housing Development (SHD) at Holybanks, Swords, Co. Dublin.

The proposed scheme will consist of the development of the existing 14.17 Ha vacant site to provide a total of 621 No. Residential units comprising a mix of housing typologies, duplexes and apartments together with a Creche facility (506.5 sqm). The detailed breakdown of the proposed residential scheme is as follows:

Typology	1Bed	2Bed	3Bed	4Bed	Total
Houses/Maisonettes	8	-	99	11	118
Duplexes	-	77	77	-	154
Apartments	137	201	11	-	349
Total	145	278	187	11	621

***Table 1** | Breakdown of Proposed Schedule of Accommodation.*

1.2 Scope

This TTA is a comprehensive review of all the potential transport impacts of the overall development, including a detailed assessment of the transportation systems provided and the impact of the proposed development on the surrounding environment and transportation network.

1.3 Standards

This Traffic and Transport Assessment has been prepared in accordance with the requirements of the Traffic and Transport Assessment Guidelines published by National Roads Authority in May 2014.

1.4 Threshold for Transport Assessment

Section 2.1 of the Traffic and Transport Assessment Guidelines (May 2014) requires submission of a Transport Assessment where a proposed development meets one or more of the following criteria:

1- Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road;

2- Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive;

3- Residential development in excess of 200 dwellings;

4- Retail and leisure development in excess of 1,000sqm;

5- Office, education and hospital development in excess of 2,500sqm;

6- Industrial development in excess of 5,000sqm;

7- Distribution and warehousing in excess of 10,000sqm.

In the case of the subject development, thresholds No. 1, 2 and 3 are exceeded.

1.5 Contents of the Transport Assessment

In compliance with Section 3.3 of the Traffic and Transport Assessment Guidelines (May 2014), the contents of this TTA include:

- Description of the existing and proposed traffic/transportation conditions including information on the current traffic, critical junctions, pedestrians, cycle and public transport facilities;
- A description of the proposed development;
- The traffic and transportation implications of the development including consideration of trip generation, mode choice and trip distribution;
- The time periods applicable to the TTA;
- The impact of the development on the surrounding road network including analysis of junction's capacity;
- Review of the historical data related to road safety;
- Description of car and cycle parking requirements and proposals.

1.6 Site Location and Zoning

The subject site is located in Holybanks, Swords, to the north of Glen Ellan Road and west of the Balheary Road as per Figure 1 – extracted from Fingal Development Plan 2017 – 2023.

According to the Swords Masterplans – Part D: Estuary West, published by Fingal County Council in May 2019 in response to objectives in the Fingal Development Plan 2017 – 2023, the subject site is situated in the 'Estuary West – a Future Residential Area' which is zoned within the Fingal Development Plan 2017 – 2023 (FDP) as a '*ME – Metro Economic Corridor*'.

The Fingal Development Plan 2017 – 2023 describes the zoning objective of a ME – Metro Economic Corridor as follows:

"*Facilitate opportunities for high density mixed-use employment generating activity and commercial development, and support provision of an appropriate quantum of residential development within the Metro Economic Corridor*."

The subject site is bounded to the south by the Glen Ellan Road, to the west by residential estates (Applewood and Thornleigh), to the east by a disused industrial building and associated carpark which forms part of the Estuary West Masterplan and to the north by the Broadmeadow River and green lands.

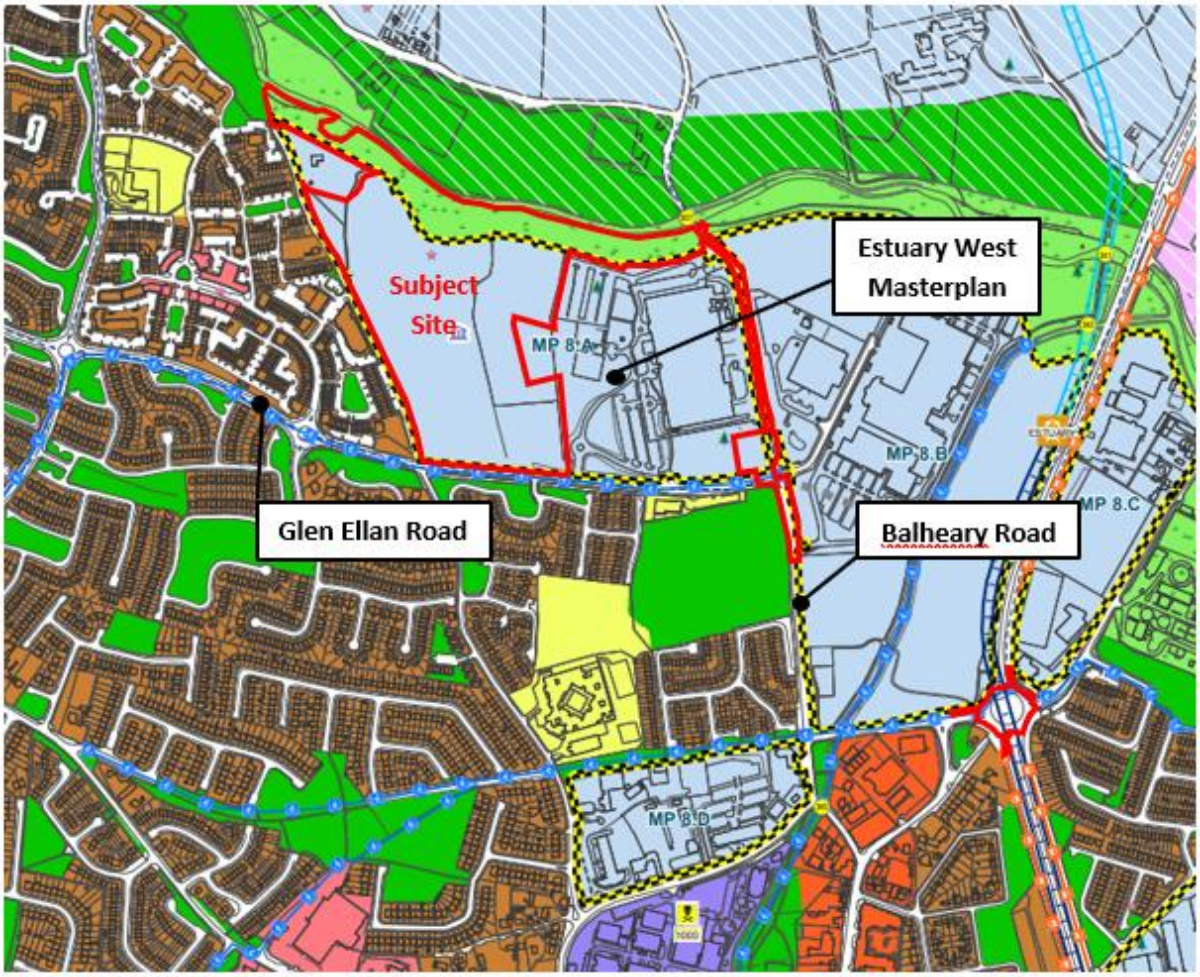


Figure 1 | *Site Location and Zoning (Source: Zoning Map – Fingal Development Plan 2017 – 2023)*

1.7 Methodology

The methodology for the preparation of this Traffic and Transport Assessment included: -

- Description of the proposed development.
- Description of the receiving environment including roads and junctions, public transport, parking and servicing, cycle facilities and pedestrian facilities.
- Description of existing and future travel characteristics including traffic survey and modal split.
- Descriptions of local transportation improvements to roads, junctions. Public transport, cycle and pedestrian facilities.
- Calculation of trip generation and distribution for the proposed development.
- Determination of future traffic movements in 2023, 2025, 2027, 2032 and 2042. Refer to Sections 1.8 and 1.9 below.
- Determination of public transport demand in 2027.
- Determination of additional transportation demand on roads, junctions, public transport, cycle and pedestrian facilities.

1.8 Project Phasing

The project is planned to be developed in three distinct phases. Phase 1 is programmed to be fully constructed by 2023, Phase 2 by 2025 and Phase 3 by 2027. The opening year of 2027 has been used in the calculations for the opening year of Phase 3 of the development. It is noted that this is an aggressive target and the actual development programme may be extended to 2029 however, to provide a robust assessment of the traffic impacts we have assumed an opening year of 2027.These milestones have been defined to fully comply with the Estuary West masterplan Phasing and Implementation programme and to coordinate with the operation of the MetroLink. Should the MetroLink project opening extend beyond 2027, which based on current timeframes is likely and suggest an early 2030's opening year, then the delivery of some or all of Phase 3 of the housing development may be delayed. The delayed delivery of MetroLink may be mitigated against through the provision of increased frequency bus services in the interim. This increased bus provision may permit increased development in the Masterplan area in advance of MetroLink, including some or all of the Phase 3 housing project and would subject to the agreement of Fingal County Council.

1.9 Assessment Years

In line with the 'Transport Assessment Guidelines (May 2014)' the years assessed in this TTA are as follows:

Surveyed Flows (Base Year)	:	2019
Opening Year Phase 1 (With / Without Development)	:	2023
Opening Year Phase 2 (With / Without Development)	:	2025
Opening Year Phase 3 (With / Without Development)	:	2027
Opening Year + 5 Years Forecast (With / Without Development)	:	2032
Opening Year + 15 Years Forecast (With / Without Development):		2042

2. Policy Framework

2.1 Fingal Development Plan (2017 – 2023)

The Fingal Development Plan (2017 – 2023) sets out the authority's policies and objectives for the development of the County for the period of 2017 to 2023. The Plan seeks to develop and improve in a sustainable manner the social, economic, cultural and environments assets of the county. In the context of the subject development site and the proposed residential scheme a number of most relevant policies include:

2.1.1 Strategic Policy

"Seek the development of a high quality public transport system throughout the County and linking to adjoining counties, including the development of the indicative route for New Metro North and Light Rail Corridor, improvements to railway infrastructure including the DART Expansion Programme, Quality Bus Corridors (QBCs) and Bus Rapid Transit (BRT) systems, together with enhanced facilities for walking and cycling."

"Promote, improve and develop a well-connected national, regional and local road and public transport infrastructure system, geared to meet the needs of the County and the Region, and providing for all road users, prioritising walking, cycling and public transport."

2.1.2 Integrated Land Use and Transportation

"***Objective MT05***: *Integrate land use with transportation by allowing higher density development along higher capacity public transport corridors."*

2.1.3 Parking

*"**Objective MT08**: Control on-street parking in the interests of the viability, vitality and amenity of commercial centres by maximising the supply of short stay parking for shoppers, while providing appropriate levels of long-term parking within a reasonable distance for employees."*

2.1.4 Walking and Cycling

*"**Objective MT13**: Promote walking and cycling as efficient, health, and environmentally-friendly modes of transport by securing the development of a network of direct, comfortable, convenient and safe cycle routes and footpaths, particularly in urban areas."*

*"**Objective MT19**: Design roads and promote the design of roads, including cycle infrastructure, in line with the Principals of Sustainable Safety in a manner consistent with the National Cycle Manual and the Design Manual for Urban Roads and Streets."*

*"**Objective MT22**: Improve pedestrian and cycle connectivity to stations and other public transport interchanges."*

2.1.5 Traffic Calming

*"**Objective MT37**: Implement traffic calming on particular roads and in appropriate areas of the County, especially residential areas, to reduce vehicle speeds in the interests of road safety and residential amenity. Ensure that where appropriate, traffic calming is included as a pre-condition as part of the development of all new estates or extensions to existing estates."*

2.1.6 Road Construction and Improvement Measures

*"**Objective MT40**: Implement a programme of road construction and improvement works closely integrated with existing and planned land uses, taking into account both car and non-car modes of transport whilst promoting road safety as a high priority. Major road construction and improvement works will include an appraisal of environmental impacts."*

2.1.7 Green Infrastructure and Planning

*"**Objective GI18**: Require all Local Area Plans to protect, enhance, provide and manage green infrastructure in an integrated and coherent manner addressing the five GI themes set out in the Development Plan – Biodiversity, Parks, Open Space and Recreation, Sustainable Water Management, Archaeological and Architectural Heritage, and Landscape."*

*"**Objective GI20**: Require all new development to contribute to the protection and enhancement of existing green infrastructure and the delivery of new green infrastructure, as appropriate."*

2.1.8 Local Area Plans and Masterplans

According to Fingal Development Plan 2017 – 2023, the main elements to be included in the Estuary West masterplan are:

- "*Future development shall provide a strong urban edge with attractive elevations which address, overlook and provide a high degree of informal supervision of: the Glen Ellan distributor Road; the extended Broadmeadow Riverside Park and Jugback Lane.*
- *A mixed use Local Services Area shall be provided in the centre of the subject lands close to Newtown House and the stand of mature trees.*
- *Provide for an extension to the Broadmeadow Riverside Park between Jugback Lane and Balheary Road in conjunction with the first phase of the development of the MP lands.*
- *Reserve a School site as required in consultation with the Department of Education and Skills.*
- *Provide for pedestrian and cycle routes within the MP lands: in particular, along a west – east access linking the proposed Local Service Area in the MP lands with Applewood to the west; along the extended Broadmeadow Riverside Park and along Jugback Lane.*
- *Provide for the retention and protection of the mature stands of trees around Newtown House as part of the development.*
- *Provide for buildings to be set back in a landscape setting from the edge of Jugback Lane.*
- *Protect the residential amenities of existing property adjoining the subject lands.*
- *Retain the rural character of Balheary Road north of its junction with Glen Ellan Road.*
- *The Master Plan lands will be subject to a detailed flood risk assessment to address potential floor risk and proposed mitigation measures.*
- *Consult with Health and Safety Authority (HSA) in relation to the designated Seveso site to the south as part of the MP process*."

2.2 Swords Masterplans - Part D: Estuary West (May 2019)

The Swords Masterplans – Part D: Estuary West, was published by Fingal County Council in May 2019 in response to objectives in the Fingal Development Plan 2017 – 2023 and to provide a robust development framework for the long-term sustainable development of the Masterplan lands. In the context of the subject

development site at Estuary West and the proposed residential scheme, a number of most relevant principles and objectives include:

2.2.1 Vision and Principles

"***The Vision****: Estuary West will become a vibrant residential and mixed-use community, with active and friendly streetscapes. The aim is to produce an exemplary environment; a place that is desirable to live and one which balances usable private space within an overall structure of high quality public spaces. The community will be prioritised, with parks, open space and public plazas filtered throughout.*"

"***Land Use****: The Masterplan lands shall be primarily residential in nature, with an element of commercial uses. The lands shall also facilitate community uses in the form of the proposed school and a local retail centre that will integrate Newtown House.*"

"***Transport and Movement****: The Masterplan seeks to facilitate strong pedestrian and cyclist connections, as well as strong connections to the town centre and public transport infrastructure. Car dominance will be discouraged and active travel promoted. Pedestrian and cyclist connections have been incorporated to facilitate access to the Metro station and Swords Main Street*."

"***Green Infrastructure****: Green Infrastructure is a key component of the design and layout of development, with flood risk mitigated by SuDS features. The extension to the Broadmeadow Riverside Park and other green corridors proposed will support a rich biodiversity in the area and support a reduced carbon footprint for new developments*."

2.2.2 Transport and Movement

The key **Transport and Movement Objectives** for the Estuary West Masterplan lands as set out in the Part D: Estuary West Masterplan are:

- *"Main vehicular access to the Masterplan lands will be achieved via the Glen Ellan Road and the Balheary Road.*
- *Smaller grade local streets will facilitate access throughout the site.*
- *Pedestrian and cyclist connections shall be incorporated to promote a reduction in the use of private car.*

Car Parking*: The Masterplan seeks to reduce the need for car-based journeys. Parking is an effective tool in managing travel demand which will also help encourage modal shift and reduce the impact of congestion on the network*.

Cycle Parking*: Secure cycle parking is to be provided at each Metro Station to enable efficient interchange. Secure and easily accessible residential cycle parking is to be provided for each residential and commercial block in accordance with the minimum standards set out in the Fingal Development Plan*."

2.2.3 Green Infrastructure

The most relevant key **Green Infrastructure Objectives** for the Estuary West Masterplan lands as set out in the Part D: Estuary West Masterplan are:

1) "*Facilitate the extension of the Broadmeadow River Park along the Broadmeadow River immediately to the north of the Masterplan lands encompassing pedestrian and cyclist infrastructure.*
2) *Provide two north-south green corridors linking the proposed extension to the Broadmeadow River Park to the Glen Ellan Road.*

3) *Ensure that new or extended open space networks are designed to facilitate people with a broad range of ability.*"

2.2.4 Phasing and Implementation

The Key **Phasing and Implementation Objectives** for the Estuary West Masterplan lands as set out in the Part D: Estuary West Masterplan are:

- "*Development within the Masterplan area shall be phased in order to manage the impact of the development envisaged on the surrounding area.*
- *No more than 25-30% of the overall quantum of development envisaged shall be constructed and occupied prior to the operation of MetroLink*."

Phase 1: mixed-use development comprising of 320-350 residential units, a school and 3,000-4,000sqm of local centre.

According to the Masterplan for the Estuary West area, the essential and strategic infrastructures to be developed during the **Phase 1**, prior to the MetroLink operation are:

1) Estuary Metrolink Station.
2) Upgrade to the Glen Ellan Road.
3) Provision of proposed school site and associated vehicular access.
4) Walking and cycling links to town centre, along Balheary Road and Jugback Lane.
5) BusConnects service or similar enhanced bus service.
6) Pedestrian access to designated BusConnects (or similar) stops.
7) Linear SuDS facilities and associated amenity area to the west of the Masterplan area.
8) Broadmeadow River green corridor – initial stage (Broadmeadow River Park extension).

The scope, extent and timing of the works related to the Estuary Metrolink Station (essential infrastructure No. 1) are to be approved by Fingal County Council (or An Bord Pleanala) and developed during or prior to the Phase 1 development. This infrastructure is to be located outside of the Masterplan lands and will be delivered as part of the Metrolink Project works. As set out in Section 1.8 supplementary bus services in advance of MetroLink delivery may permit some development beyond that set out in the Masterplan Phase 1 proposals.

Upgrades to the Glen Ellan Road (essential infrastructure No. 2) along the subject site frontage are proposed under the subject development works and are to be delivered prior to the Phase 1 occupation. As part of the proposed development works on Glen Ellan Road, links to the existing pedestrian crossing facilities will be provided to facilitate pedestrian movement towards the designated BusConnects stops (essential infrastructure No. 6).

Provision has been made on the site for a future school (essential infrastructure No. 3) but does not form part of this application. However, vehicular access to the proposed school site will be provided via a priority-controlled T-junction off Glen Ellan Road which will be constructed as part of the subject development works.

The scope, extent and timing of the works related to the essential infrastructure No. 4 are to be defined by Fingal County Council and developed during the Phase 1 development works.

With regards to essential infrastructure No. 5, according to BusConnects framework plan, the new bus network will be implemented on a phased basis and will take place over a number of years commencing in

2021 with 11 phases with Phase 1 & 2 of the roll out complete. The A spine serving Swords / Dublin Airport is programmed to be complete in 2025. (tbc).

The first 272 No. residential units (118 No. houses/maisonettes and 154 No. duplexes) proposed as part of the subject development are estimated to be delivered by 2025. At that stage, it is expected that the BusConnects service (essential infrastructure No. 5) will be partially or completely in place in the local area to serve the Phase 1 and Phase 2 of the proposed development. Phases 1 and 2 of the proposed development would form part of the Phase 1 of Estuary West masterplan.

The internal layout of the proposed development includes linear SuDS elements which will mitigate any potential flood risk on site. These SuDS will be delivered as part of the proposed development works during Phase 1 of Estuary West Masterplan.

A green corridor is proposed on the north portion of the site along the southern side of the Broadmeadow River and will be delivered during Phase 1 of the proposed development works. This green corridor will facilitate connection to the proposed regional park to the west and will facilitate pedestrian/cyclist progression towards R132, the new Estuary Metrolink Station and the Broadmeadow Estuary to the east.

Phase 2: mixed-use development comprising of 520-570 residential units and 18,000-20,000sqm of commercial floorspace.

According to the Masterplan for the Estuary West area, the essential and strategic infrastructure to be developed during the **Phase 2** are:

9) Green connection along the Broadmeadow River to connect the proposed regional park to the north-west of Swords to the Broadmeadow Estuary.

10) Upgraded green infrastructure link through the Estuary Central Masterplan area.

11) Completion of primary internal vehicular circulation area.

A green corridor is proposed on the north portion of the site along the southern side of the Broadmeadow River and will be delivered during Phase 1 of the proposed development works. This green corridor will facilitate connection to the proposed regional park to the west and will facilitate pedestrian/cyclist progression towards R132, the new Estuary Metrolink Station and the Broadmeadow Estuary to the east.

A green infrastructure through the Estuary Central Masterplan is already in place along Ward River which currently facilitates safe and comfortable pedestrian/cyclist movements throughout the area. The works related to the upgrades on this green infrastructure will be undertaken outside the Estuary West Masterplan lands. They are to be defined by FCC and delivered by third party during the Phase 2 development of the Estuary West masterplan.

As part of the subject development works, a network of vehicular circulation area with a south-north and a west-east spines will be provided within the site during Phase 1 of the proposed development. The internal road network has been designed in accordance with the Design Manual for Urban Roads and Streets (DMURS) and include a new main vehicular access from Glen Ellan Road and secondary access from Jugback Lane.

Phase 3: residential development comprising of 60-80 residential units.

According to the Masterplan for the Estuary West area, the essential and strategic infrastructure to be developed during the **Phase 3** is:

12) Broadmeadow River green corridor – completion.

A green corridor is proposed on the north portion of the site along the southern side of the Broadmeadow River and will be delivered during Phase 1 of the proposed development works. This green corridor will

facilitate connection to the proposed regional park to the west and will facilitate pedestrian/cyclist progression towards R132, the new Estuary Metrolink Station and the Broadmeadow Estuary to the east.

3. Receiving Environment

3.1 Existing Roads and Junctions

3.1.1 Roads

The proposed site is located circa 1.4 km north of Swords Town Centre and is in close proximity to the M1 motorway, regional routes, primarily the R132 Dublin Road and local roads. The key roads within this network are shown in Figure 2 and described below.

The **M1 Motorway** is an important double carriageway road which is subject to a speed limit of 120kph linking Dublin to Belfast and provide direct access to the M50, Dublin Airport and Dublin Port.

The **R132 Dublin Road** is a double carriageway road subject to a speed limit of 80kph with two normal traffic lanes and a hard shoulder on each side of the carriageway. Traveling north from the R132/R125 roundabout (Junction A – See Figure 2), the R132 links to the M1 Motorway at Junction 4. Footpaths or cycle lanes are not provided on this section on the road. To the south, the R132 extents towards Dublin, facilitating access to Dublin Airport, as far as Collins Avenue before joining the N1 National Road.

The **R125** is a single carriageway road subject to a speed limit of 50kph. Traveling eastwards from the signalised junction with Balheary Road (Junction B as per Figure 2), the R125 terminates at a four-armed roundabout with R132 Dublin Road (Junction A – Figure 2). Along this section, there are footpaths provided on both sides of the carriageway. To the west, the R125 connects Swords with Ashbourne.

Balherary Road is a single carriageway road subject to a speed limit of 50kph. Approximately 380m to the south of the signalised junction with Glen Ellan Road (Junction C as per Figure 2), Balheary Road terminates at a four-armed signalised junction with R125 (Junction B – Figure 2). Along this section of the road, footpath is provided on the eastern side of the carriageway.

Glen Ellan Road will comprise the primary access to the subject site. It is a single carriageway road subject to a speed limit of 50kph with footpaths and cycle lanes provided along both sides. Traveling in the easterly direction from the subject site, approximately 400m, the Glen Ellan Road terminates at a four-armed signalised junction with Balheary Road (Junction C – Figure 2).

Jugback Lane will comprise the secondary access to the subject site. In the section of road adjacent to the proposed development site, Jugback Lane is a single carriageway road subject to a speed limit of 30kph with some metres of footpaths provided on the western side of the carriageway and no cycle lanes provided. Jugback Lane intersects Glen Ellan Road at the southwestern edge of the subject site and continues south towards R125.

3.1.2 Junctions

The local primary junctions which currently provide access to proposed development site at Estuary West masterplan lands are:

- **Junction A (Existing Four-armed Roundabout)**: R132 Dublin Road / R125;
- **Junction B (Existing Signalised Crossroads)**: Balheary Road / R125 / Castlegrange Green;
- **Junction C (Existing Signalised Crossroads)**: Balheary Road / Glen Ellan Road / Access Road to Swords Business Campus.

The Oldtown-Mooretown Local Area Plan, published by the Planning Department of Fingal County Council in 2010, identified these three junctions as requiring upgrade works and set out potential design solutions. The proposed layout of each junction is presented later in Section 4.1 of this report.

The existing local road network and location of the listed primary junctions in relation to the proposed development site is illustrated in Figure 2.

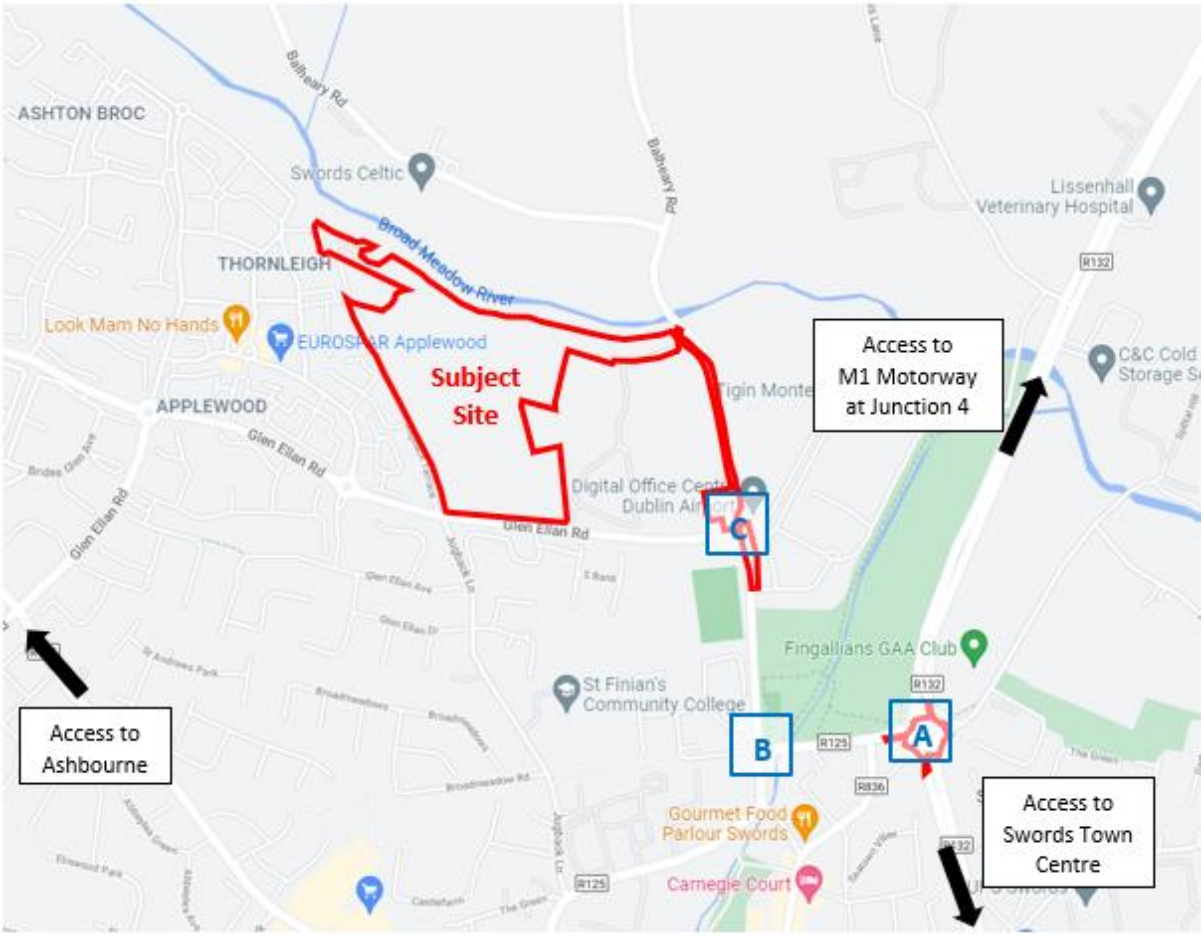


***Figure 2** | Existing Road Network and Local Primary Junctions.*

3.2 Existing Traffic Conditions

In order to quantify the volumes of traffic movements at key junctions on the road network surrounding the subject development site, a classified turning movement traffic count was commissioned.

A Manual Classified Traffic Survey was carried out by 'Traffinomics Limited' on Wednesday 20th March 2019 at 2 No. signalised junctions and 3 No. roundabouts during the hours of 07:00 – 10:00 in the AM and 16:00 – 19:00 in the PM. The junctions surveyed were:

- **Junction 1 (Roundabout)**: Ashton Distributor Road / Glen Ellan Road.
- **Junction 2 (Roundabout)**: Applewood Main Street / Glen Ellan Road.
- **Junction 3 (Signalised)**: Balheary Road / Glen Ellan Road / Access Road to Swords Business Campus (primary Junction C as per Figure 2).
- **Junction 4 (Signalised)**: Balheary Road / R125 / Castlegrange Green (primary Junction B as per Figure 2).
- **Junction 5 (Roundabout)**: R132 Dublin Road / R125 (primary Junction A as per Figure 2).

The surveys were carried out on the date identified above to ensure that flows were representative of normal term time and hence not affected by school holidays or other public holidays or events. As such they provide a reasonable representation of a neutral month during a period of normal school and employment activity. The surveys are designed to provide representative values encompassing AM and PM periods during normal traffic conditions. The location of the surveyed junctions in relation to the subject development site is illustrated in Figure 3 below.

Figure 3 | *Location of Surveyed Junctions.*

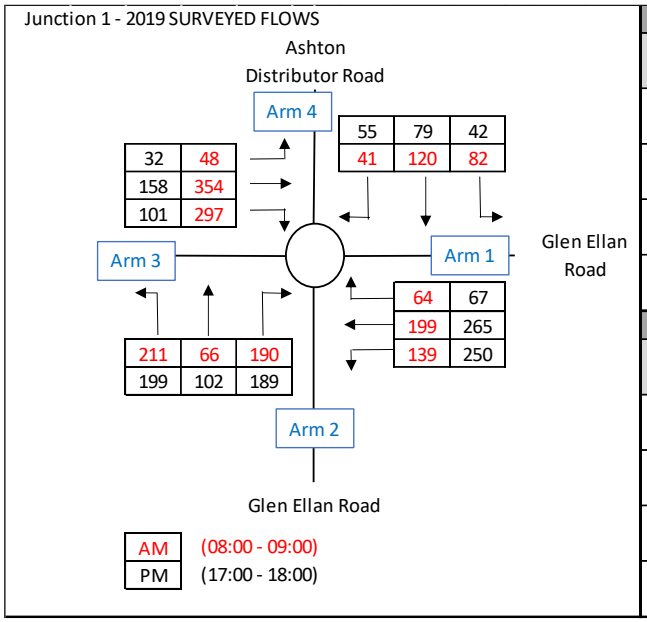
The results of this survey indicated that the peak traffic levels through the junctions occurred between the hours of 08:00 – 09:00 in the AM and 17:00 to 18:00 in the PM. These traffic levels are presented in the following sections.

In order to ascertain the existing operational capacity of each surveyed junction during the AM and PM peak hours, they have been modelled based on their current layout and on their surveyed traffic levels, and the results are presented below.

3.2.1 Junction 1 – Ashton Distributor Road / Glen Ellan Road

Junction 1 is an existing four-armed roundabout located to the west of the proposed development site. It has been modelled using ARCADY software and the results are presented in Figure 4. The arms of the roundabout were labelled as follows within the ARCADY model:

- Arm 1: Glen Ellan Road (E).
- Arm 2: Glen Ellan Road (S).
- Arm 3: Glen Ellan Road Extension (W).
- Arm 4: Ashton Distributor Road (N).



AM Peak Hour - ARCADY Analysis Results			
Arm	Queue Length (vehicles)	Delay (seconds/vehicle)	RFC
Arm 1	0.5	4.63	0.34
Arm 2	0.5	3.69	0.32
Arm 3	1	5.21	0.50
Arm 4	0.6	8.68	0.37

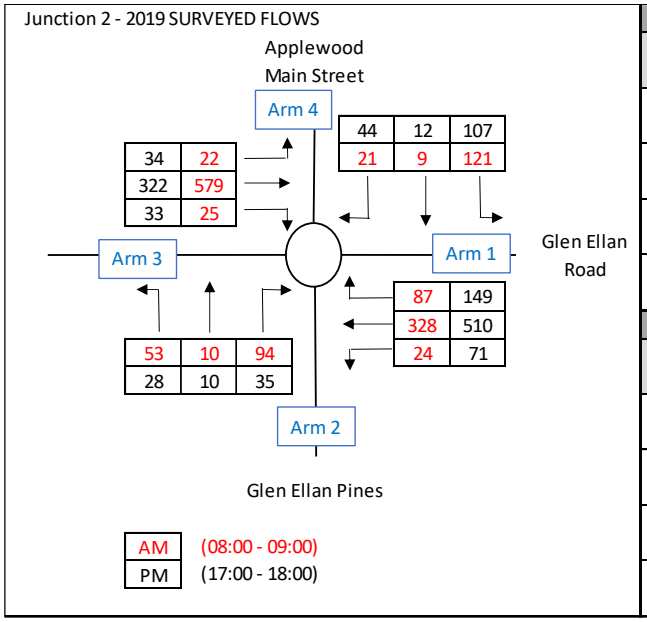
PM Peak Hour - ARCADY Analysis Results			
Arm	Queue Length (vehicles)	Delay (seconds/vehicle)	RFC
Arm 1	0.8	4.81	0.44
Arm 2	0.5	4.02	0.35
Arm 3	0.3	3.36	0.21
Arm 4	0.2	5.08	0.20

Figure 4 | *Junction 1 – 2019 Surveyed Flows and ARCADY Analysis Results.*

3.2.2 Junction 2 – Applewood Main Street / Glen Ellan Road

Junction 2 is an existing four-armed roundabout located to the west of the proposed development site. It has been modelled using ARCADY software and the results are presented in Figure 5. The arms of the roundabout were labelled as follows within the ARCADY model:

- Arm 1: Glen Ellan Road (E).
- Arm 2: Glen Ellan Pines (S).
- Arm 3: Glen Ellan Road (W).
- Arm 4: Applewood Main Street (N).



AM Peak Hour - ARCADY Analysis Results			
Arm	Queue Length (vehicles)	Delay (seconds/vehicle)	RFC
Arm 1	0.4	3.13	0.28
Arm 2	0.1	3.37	0.13
Arm 3	0.9	5.13	0.47
Arm 4	0.3	6.09	0.20

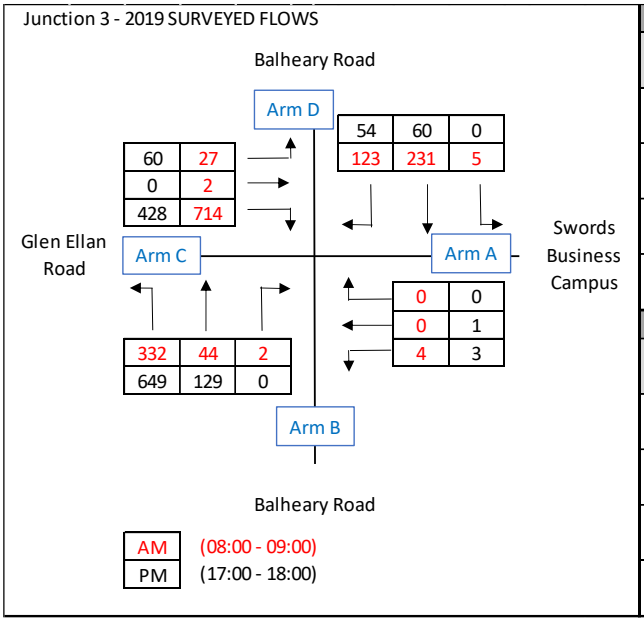
PM Peak Hour - ARCADY Analysis Results			
Arm	Queue Length (vehicles)	Delay (seconds/vehicle)	RFC
Arm 1	0.9	4.30	0.47
Arm 2	0.1	3.72	0.07
Arm 3	0.4	3.84	0.29
Arm 4	0.2	4.71	0.18

Figure 5 | *Junction 2 – 2019 Surveyed Flows and ARCADY Analysis Results.*

3.2.3 Junction 3 – Balheary Road / Glen Ellan Road / Swords Business Campus

Junction 3 is an existing signalised crossroads located to the east of the proposed development site. It has been modelled using TRANSYT software and the results are presented in Figure 6. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: Swords Business Campus Access Road (E).
- Arm B: Balheary Road (S).
- Arm C: Glen Ellan Road (W).
- Arm D: Balheary Road (N).



AM Peak Hour - TRANSYT Analysis Results				
Arm	Movement	Queue Length (vehicles)	Delay (seconds/vehicle)	DOS (%)
A	S/L/R	0.13	55.55	4
B	L	6.16	16.06	36
	S/R	1.74	75.78	51
C	S/L	0.52	17.43	3
	R	23.32	39.85	85
D	S/L/R	15.71	86.50	92

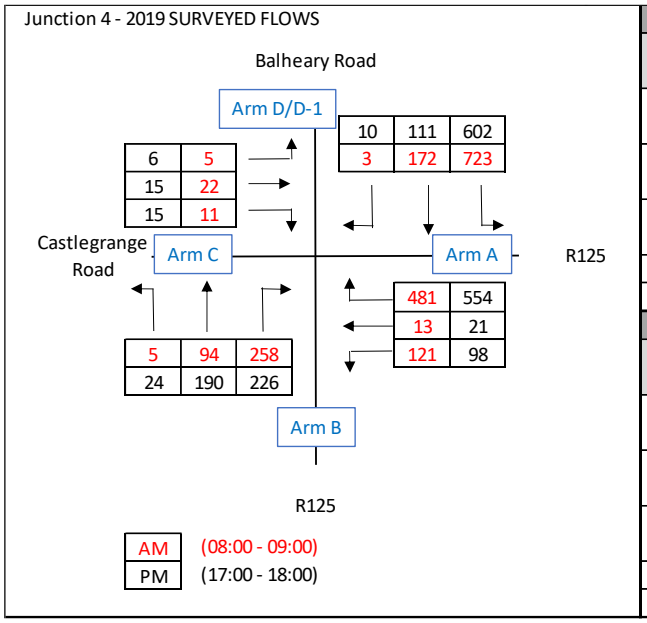
PM Peak Hour - TRANSYT Analysis Results				
Arm	Movement	Queue Length (vehicles)	Delay (seconds/vehicle)	DOS (%)
A	S/L/R	0.13	55.55	4
B	L	12.13	13.87	58
	S/R	3.26	32.73	24
C	S/L	1.41	29.37	11
	R	13.82	46.04	75
D	S/L/R	3.89	59.99	54

***Figure 6** | Junction 3 – 2019 Surveyed Flows and TRANSYT Analysis Results.*

3.2.4 Junction 4 – Balheary Road / R125 / Castlegrange Green

Junction 4 is an existing signalised crossroads located to the southeast of the proposed development site. It has been modelled using TRANSYT software and the results are presented in Figure 7. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: R125 (E).
- Arm B: R125 (S).
- Arm C: Castlegrange Green (W).
- Arm D: Balheary Road (N) – Straight/Right Turning Lane.
- Arm D-1: Balheary Road (N) – Left Turning Slip Lane (Flashing Amber).



AM Peak Hour - TRANSYT Analysis Results				
Arm	Movement	Queue Length (vehicles)	Delay (seconds/vehicle)	DOS (%)
A	S/L	3.15	25.86	19
	R	14.83	36.91	67
B	S/L	2.99	43.94	26
	R	9.18	55.76	67
C	S/L/R	1.66	91.41	55
D	S/R	6.57	65.70	67
D-1	L	0.13	0.67	40

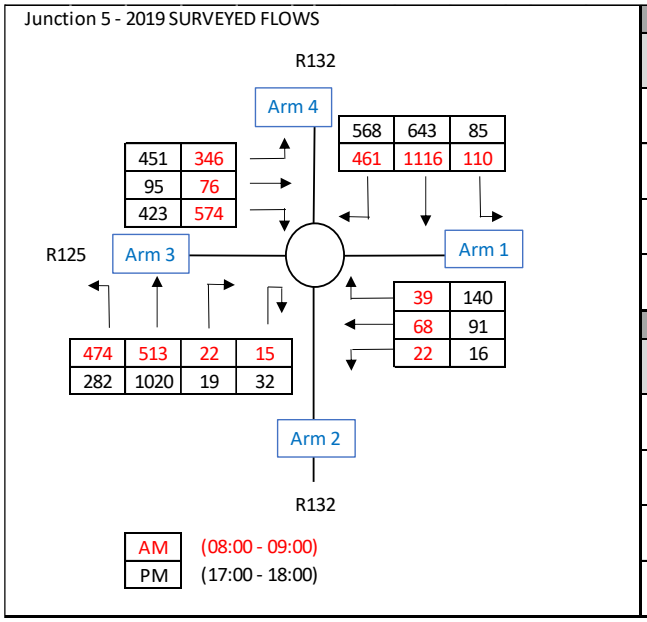
PM Peak Hour - TRANSYT Analysis Results				
Arm	Movement	Queue Length (vehicles)	Delay (seconds/vehicle)	DOS (%)
A	S/L	2.56	21.74	15
	R	16.61	33.73	69
B	S/L	7.17	51.08	55
	R	7.68	52.18	58
C	S/L/R	1.54	88.27	52
D	S/R	4.86	76.08	67
D-1	L	0.08	0.50	33

***Figure 7** | Junction 4 – 2019 Surveyed Flows and TRANSYT Analysis Results.*

3.2.5 Junction 5 – R132 Dublin Road / R125

Junction 5 is an existing four-armed roundabout located to the southeast of the proposed development site. It has been modelled using ARCADY software and the results are presented in Figure 8. The arms of the roundabout were labelled as follows within the ARCADY model:

- Arm 1: Eastern Arm (E).
- Arm 2: R132 Dublin Road (S).
- Arm 3: R125 (W).
- Arm 4: R132 Dublin Road (N).



AM Peak Hour - ARCADY Analysis Results			
Arm	Queue Length (vehicles)	Delay (seconds/vehicle)	RFC
Arm 1	0.4	12.44	0.31
Arm 2	1.3	4.74	0.57
Arm 3	1.3	4.82	0.57
Arm 4	53.8	77.69	1.01

PM Peak Hour - ARCADY Analysis Results			
Arm	Queue Length (vehicles)	Delay (seconds/vehicle)	RFC
Arm 1	0.6	8.30	0.36
Arm 2	5.7	14.95	0.85
Arm 3	3.0	11.10	0.75
Arm 4	3.4	9.43	0.78

***Figure 8** | Junction 5 – 2019 Surveyed Flows and ARCADY Analysis Results.*

3.2.6 Summary of Existing Traffic Conditions at Surveyed Junctions

As can be seen from the ARCADY analysis results in Figure 4 above, Junction 1 is currently operating well within capacity during both peak hours, with the highest RFC at 0.50 and a corresponding queue of 1.0 vehicle recorded on Glen Ellan Road Extension (W) in the AM, and with the highest RFC at 0.44 and a corresponding queue of 0.8 vehicle record on Glen Ellan Road (E) in the PM.

The ARCADY analysis results presented in Figure 5 indicate that Junction 2 is currently operating well within capacity during both peak hours, with the highest RFC at 0.47 and a corresponding queue of 0.9 vehicle recorded on Glen Ellan Road (W) in the AM, and with the highest RFC at 0.47 and a corresponding queue of 0.9 vehicle recorded on Glen Ellan Road (E) in the PM.

The TRANSYT analysis results presented in Figure 6 indicate that Junction 3 is currently operating at capacity during the AM peak hour, with the highest DOS at 92% and a corresponding queue of 15.71 vehicles occurring on Balheary Road (N), and within capacity during the PM peak hour, with the highest DOS at 75% and a corresponding queue of 13.82 vehicles occurring on Glen Ellan Road (W).

The TRANSYT analysis results presented in Figure 7 indicate that Junction 4 is currently operating within capacity during both peak hours, with the highest DOS at 67% and a corresponding queue of 14.83 vehicles recorded on R125 (S) in the AM, and with the highest DOS at 69% and a corresponding queue of 16.61 vehicles recorded also on Balheary Road (N).

The ARCADY analysis results presented in Figure 8 indicate that Junction 5 is currently operating above capacity during the AM peak hour, with the highest RFC at 1.01 and a corresponding queue of 53.8 vehicles occurring on R132 (N), and at capacity during the PM peak hour, with the highest RFC at 0.85 and a corresponding queue of 5.7 vehicles occurring on R132 (S).

3.3 Existing Bus Service

Existing bus services which currently serve the proposed development site area include:

- Swords Express and
- Dublin Bus
- Go Ahead Ireland
- Transport for Ireland

3.3.1 Swords Express

The Swords Express provides and existing, high-quality and express bus service from Swords to Dublin City Centre which is routed along Glen Ellan Road. The Swords Express has a travel time of approximately 35 minutes to The Point Village. The Swords Express Timetable is included in Appendix A.

The Swords Express links Swords to Dublin City Centre via the Port Tunnel. There are two coach stops located along Glen Ellan Road approximately 150m of the proposed site entrance, being the Jugback Lane and the St. Colmcille GAA Club. The routes that serve these coach stops are 500, 500X, 503, 507 (all daily) and 500N (Thursday and Friday night).

During peak hours this is a high frequency service with 22 buses from Glen Ellan Road to the city centre between the hours of 06:22 and 09:00 in the morning, which equates to one bus approximately every 7 minutes. In the evening peak, there is a similar service with 21 buses leaving the city centre traveling to Glen Ellan Road between the hours of 17:00 and 19:00 equating to a frequency of one bus every 5min 45sec.

Outside of peak hours the Swords Express runs at least every 30 minutes from Monday to Saturday and once per hour on Sundays.

On 01 March 2022, Waterman Moylan undertook a survey of the capacity in the Bus Network which would directly serve the subject site. This capacity study was undertaken adjacent to the development site and also at the stop in Swords before the buses join the M1 motorway. The survey was undertaken during the peak morning hours and it was found that all busses were operating at approximately 50% capacity or less.

3.3.2 Go-Ahead Ireland

In addition to the Swords Express service, the following Go-Ahead Ireland routes also serve the subject site area:

- **Go Ahead Route 197**: Swords – Ashbourne
- **Go Ahead Route 33a**: Balbriggan – Dublin Airport
- **Go Ahead Route 33b**: Portane – Swords

The weekday and weekends frequencies which these routes operate are presented in Table 2 below.

Go Ahead Route	Weekdays Frequencies	Saturday Frequencies	Sunday Frequencies
33a	30-60min (All day)	90min (All day)	90min (All day)
33b	30-45min (All day)	30-60min (All day)	30-60min (All day)
197	60min (All day)	60min (All day)	60min (All day)

Table 2 | Go Ahead Routes – Weekdays and Weekends Frequencies

3.3.3 Transport for Ireland

In addition to the Swords Express service, the following Transport for Ireland routes also serve the subject site area:

- **Transport for Ireland Route 196**: St. Margaret`s – Swords Nursing Home

The weekday and weekends frequencies which these routes operate are presented in Table 3 below.

Transport for Ireland Route	Weekdays Frequencies	Saturday Frequencies	Sunday Frequencies
196	40-60min (All day)	40-60min (All day)	Not work

Table 3 | Transport for Ireland Route– Weekdays and Weekends Frequencies.

Dublin Bus

In addition to the Swords Express service, the following Dublin Bus routes also serve the subject site area:

- **Dublin Bus Route 41c**: Lower Abbey Street – Swords Manor
- **Dublin Bus Route 43**: Talbot Street – Swords Business Park
- **Dublin Bus Route 41**: Lower Abbey Street – Swords Manor
- **Dublin Bus Route 41b**: Lower Abbey Street – Rolestown
- **Dublin Bus Route 41x**: UCD Belfield – Knocksedan
- **Dublin Bus Route 33**: Lower Abbey Street – Balbriggan
- **Dublin Bus Route 33a**: Dublin Airport – Balbriggan
- **Dublin Bus Route 33b**: Swords – Portrane

- **Dublin Bus Route 33e**: Lower Abbey Street – Mourne view
- **Dublin Bus Route 33n**: Westmoreland Street - Balbriggan

The weekday and weekends frequencies which these routes operate are presented in Table 4 below.

Dublin Bus Route	Weekdays Frequencies	Saturday Frequencies	Sunday Frequencies
41c	20-30min (All day)	20-30min (All day)	20-30min (All day)
43	30min (Peak Hours) 60min (Off Peak)	60min (All day)	60min (All day)
41	20-30min (All day)	20-30min (All day)	30min (All day)
41b	5h (All day)	5h (All day)	8h (All day)
41x	1 Time per day	Not work	Not work
33	40min (Peak Hours) 60min (Off Peak)	60min (All day)	60min (All day)
33a	30-60min (All day)	90min (All day)	90min (All day)
33b	30-45min (All day)	30-60min (All day)	30-60min (All day)
33e	1 Time per day	Not work	Not work
33n	4 Times per night (Thursday and Friday)	4 Times per night	Not work

Table 4 | Dublin Bus Routes – Weekdays and Weekends Frequencies.

The closest bus stops which are served by Dublin Bus Route 41c are located on Glen Ellan Road approximately 150m west of the main site access, being Bus Stop No. 4923 (eastbound – towards Dublin) and Bus Stop No. 4918 (westbound – towards Swords Manor). See Figure 9. A network of footpaths are provided on both sides of the Glen Ellan Road and there are dedicated signalised pedestrian crossing facilities at the junction with Balheary Road and between the Bus Stops No. 4923 and No. 4918 which currently provide pedestrian safety and comfort to cross the road.

The closest bus stops which are served by Dublin Bus Route 43 are located on R836 approximately 1.1km (13-minute walk as per Figure 9) of the main site access, being Bus Stop No. 3752 (southbound – towards Dublin) and Bus Stop No. 3712 (northbound – towards Swords Business Park). See Figure 10.

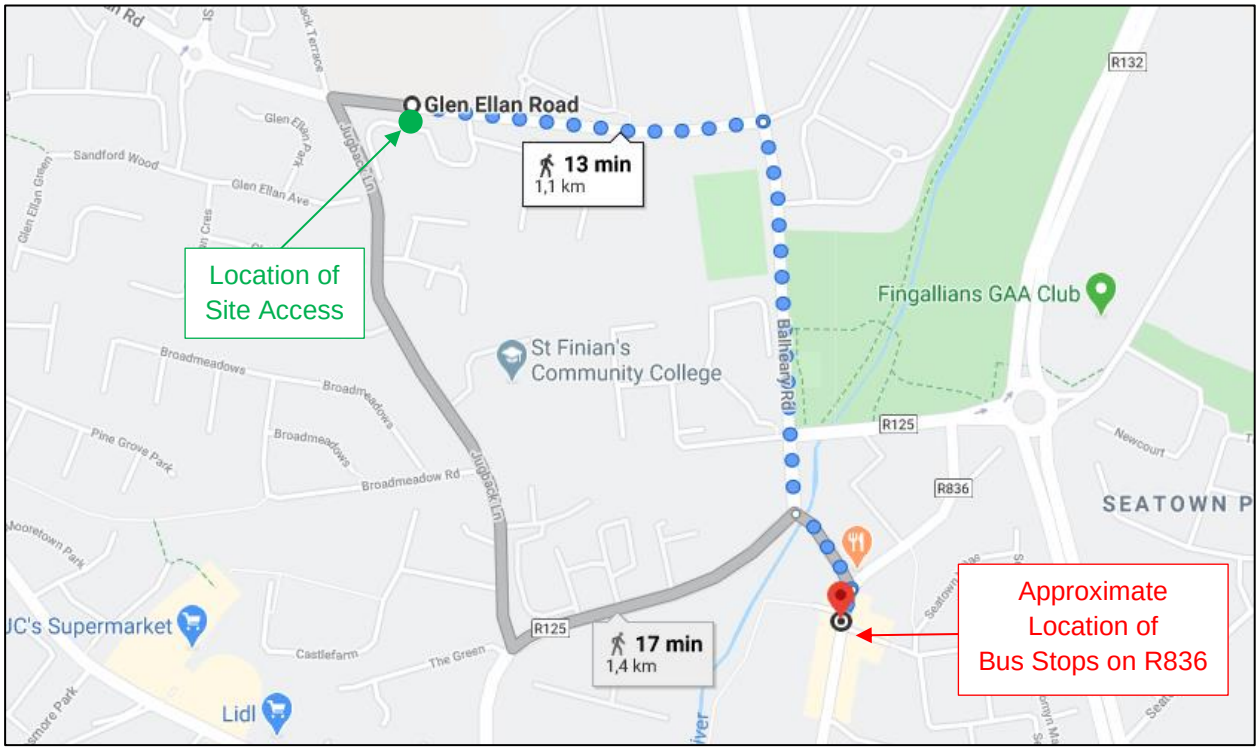


Figure 9 *| Walking Route from Subjet Site to Bus Stops on R836 (Source: Google Maps).*

In reference to Figure 9, a network of footpaths is provided on Glen Ellan Road, Balheary Road and R125 with dedicated pedestrian crossing facilities at each road crossing point along the route to the bus stops. All these pedestrian crossings include dropped kerbs.

Travel time on Go-Ahead Route 33a from Bus Stop No. 3712 on Glen Ellan Road to Dublin Airport is approximately 40 minutes.

Travel time on Go-Ahead Route 33b from Bus Stop No. 3712 on Glen Ellan Road to Marsh Lane is approximately 60 minutes.

Travel time on Dublin Bus Route 33 from Bus Stop No. 3712 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 33e from Bus Stop No. 3712 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 41c from Bus Stop No. 3712 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 43 from Bus Stop No. 3679 on Glen Ellan Road to Talbot Street in Dublin City Centre is approximately 70 minutes.

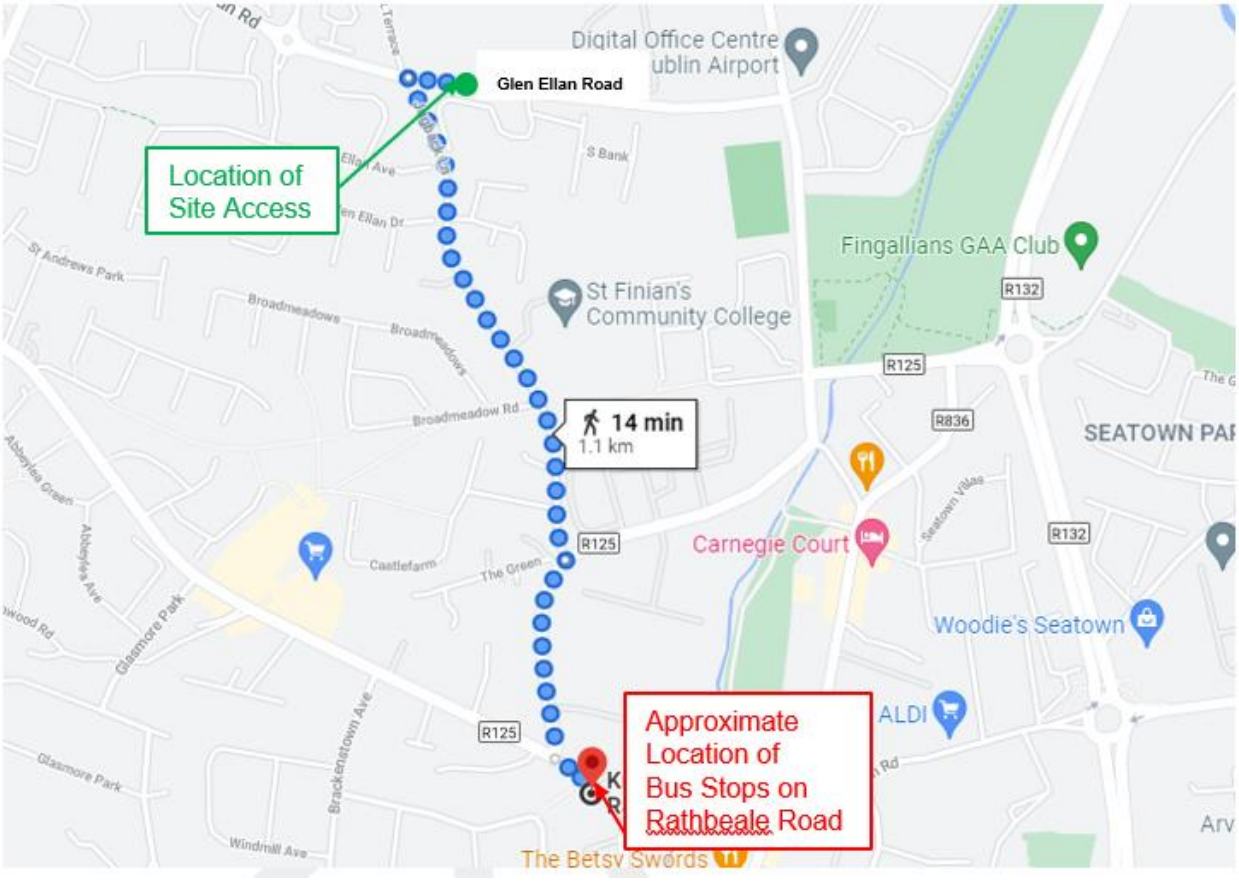


Figure 10 | Walking Route from Subject Site to Bus Stops on Rathbeale Road (Source: Google Maps).

In reference to Figure 10, a network of footpaths is provided on Glen Ellan Road, Rathbeale Road with dedicated pedestrian crossing facilities at each road crossing point along the route to the bus stops. All these pedestrian crossings include dropped kerbs.

Travel time on Dublin Bus Route 41 from Bus Stop No. 5075 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 41b from Bus Stop No. 5075 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 41x from Bus Stop No. 5075 on Glen Ellan Road to Tara Street is approximately 60 minutes.

Travel time on Go-Ahead Route 197 from Bus Stop No. 5075 on Glen Ellan Road to Ashbourne is approximately 60 minutes.

Travel time on Transport for Ireland 196 from Bus Stop No. 5075 on Glen Ellan Road to Swords Nursing Home is approximately 60 minutes.

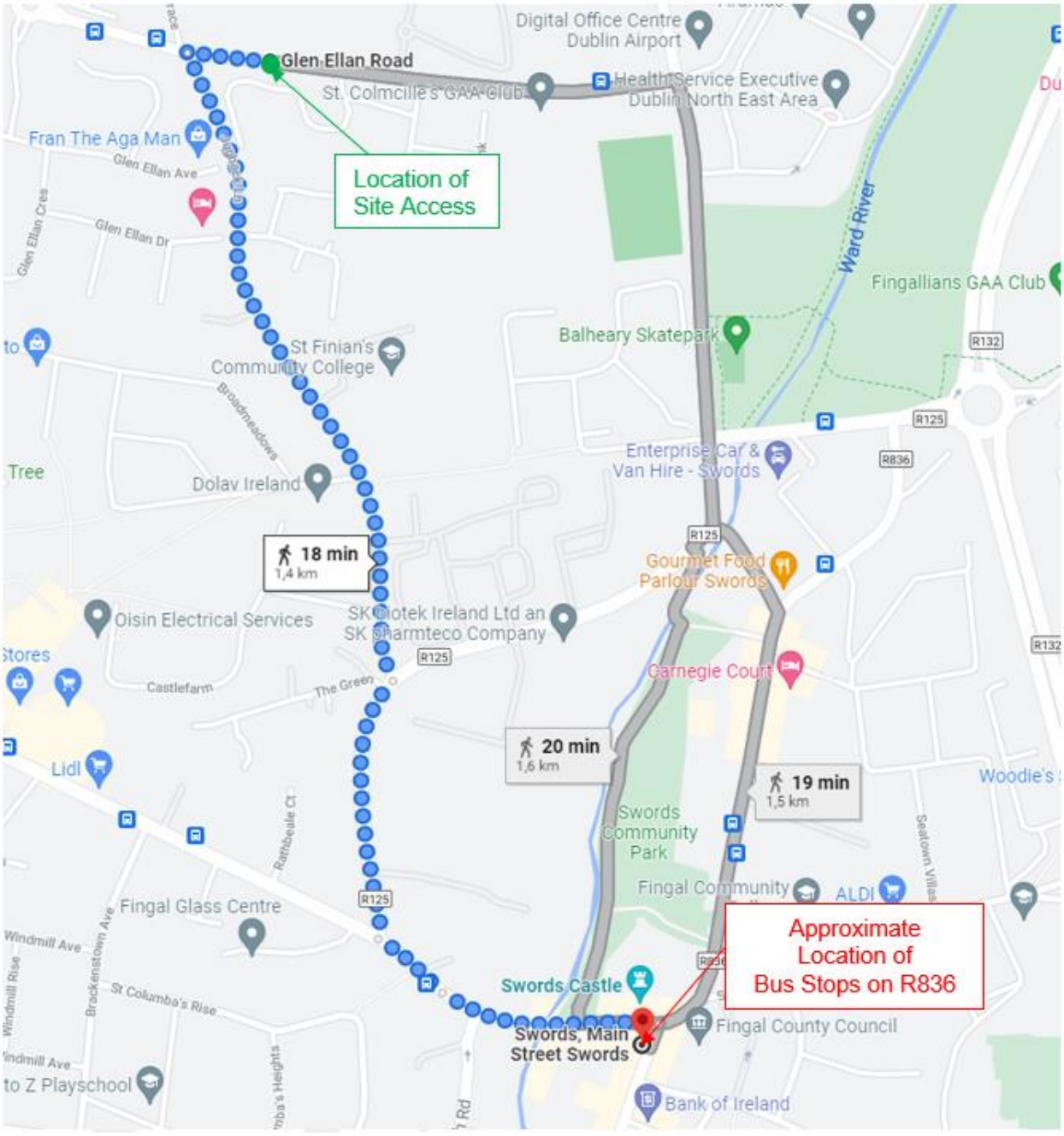


Figure 11 | Walking Route from Subject Site to Bus Stops on on R836 (Source: Google Maps).

In reference to Figure 11, a network of footpaths is provided on Glen Ellan Road, Main Street with dedicated pedestrian crossing facilities at each road crossing point along the route to the bus stops. All these pedestrian crossings include dropped kerbs.

Travel time on Go-Ahead Route 33a from Bus Stop No. 3679 on Glen Ellan Road to Dublin Airport is approximately 40 minutes.

Travel time on Go-Ahead Route 33b from Bus Stop No. 3679 on Glen Ellan Road to Marsh Lane is approximately 60 minutes.

Travel time on Go-Ahead Route 197 from Bus Stop No. 3679 on Glen Ellan Road to Ashbourne is approximately 60 minutes.

Travel time on Dublin Bus Route 33 from Bus Stop No. 3679 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 33e from Bus Stop No. 3679 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 41 from Bus Stop No. 3679 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 41c from Bus Stop No. 3679 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 41b from Bus Stop No. 3679 on Glen Ellan Road to Lower Abbey Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 41x from Bus Stop No. 3679 on Glen Ellan Road to Tara Street is approximately 60 minutes.

Travel time on Dublin Bus Route 43 from Bus Stop No. 3679 on Glen Ellan Road to Talbot Street in Dublin City Centre is approximately 70 minutes.

Travel time on Dublin Bus Route 33n from Bus Stop No. 3679 on Westmoreland Street to Glen Ellan Road is approximately 60 minutes.

Travel time on Transport for Ireland 196 from Bus Stop No. 3679 on Glen Ellan Road to Swords Nursing Home is approximately 60 minutes.

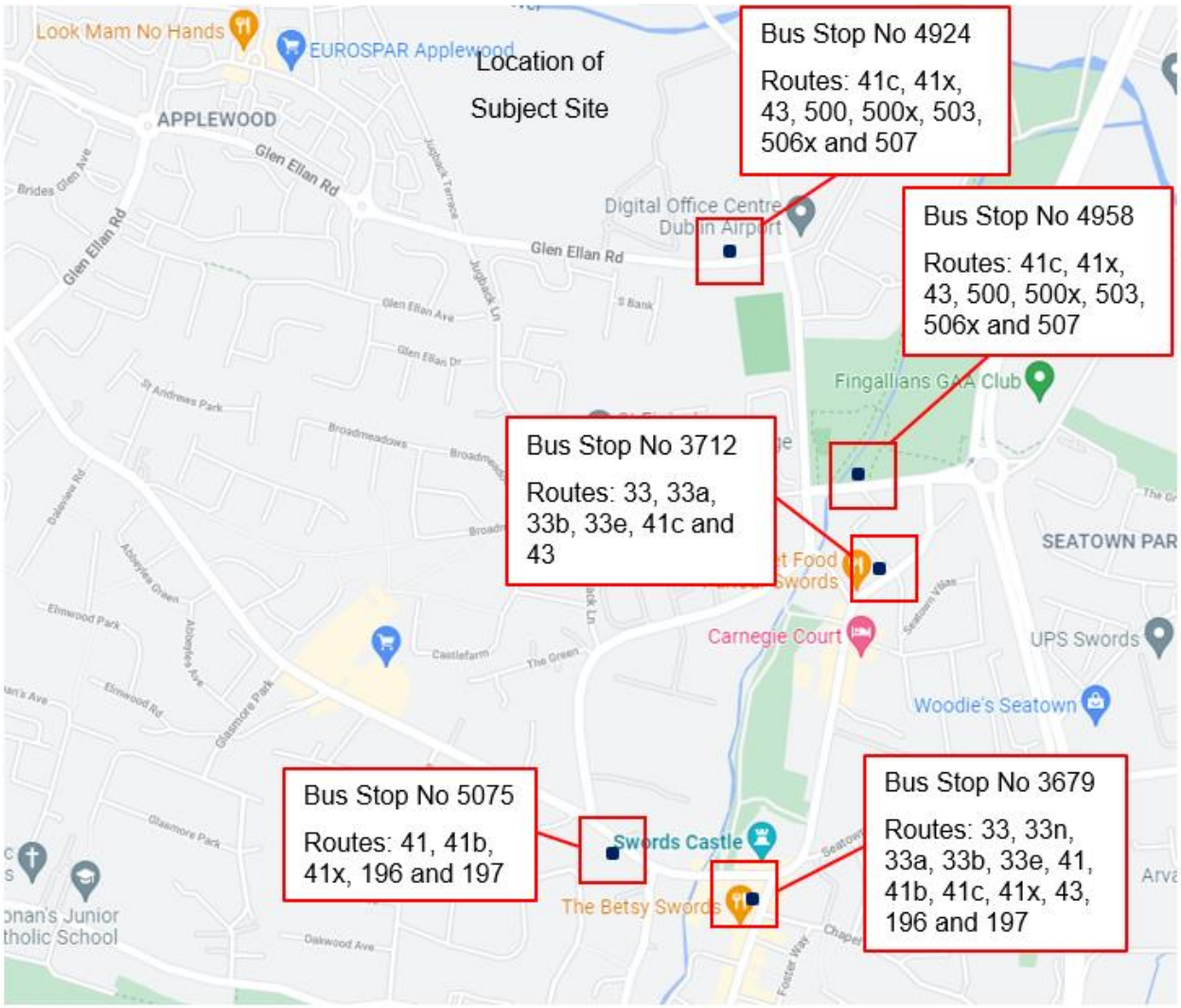


Figure 12 | Location of Closest Bus Stops Served by Dublin Bus Routes, Go-Ahead and Transport for Ireland.

3.4 Existing Car Sharing Service

The closest GoCar station, which is served by two vehicles, is located in the car park at Braeburn Terrace, Applewood, approximately 650m (8-minute walk) northwest of the main vehicular access on Glen Ellan Road, and approximately 350m (4-minute walk) west of the secondary access on Jugback Lane.

The location of the closest GoCar station in relation to the proposed development site is illustrated below.

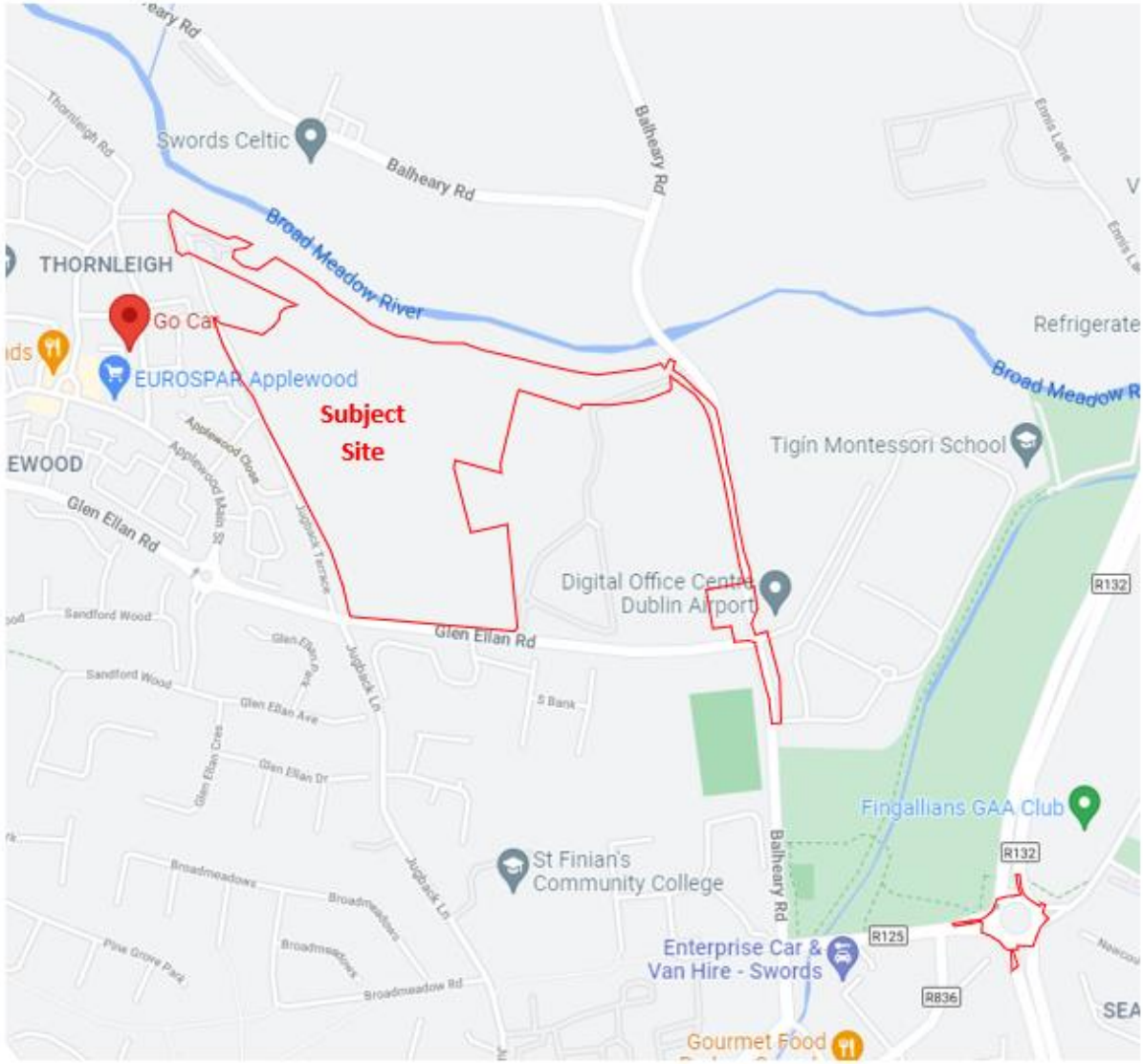


Figure 13 | *Location of Closest GoCar Station (Source: www.gocar.ie)*

3.5 Existing Cycle Facilities

Along the site frontage, cyclists can benefit from the provision of a dedicated cycle lane along the south side of the carriageway on Glen Ellan Road. This cycle lane is separated from the road by a footpath and a grass verge. Figure 14 is an extract of the Cycle Network Plan for the Greater Dublin Area which illustrates the existing cycling infrastructure within the area surrounding the proposed development site.

Figure 14 | *Existing Cycle Infrastructure-Extracted from Sheet E9 in GDA Cycle Network Plan.*

3.6 Existing Pedestrian Facilities

The existing pedestrian facilities in the surrounding area comprise an inter-connected network of footpaths linking the various neighbourhoods to each other, to the existing schools, to the existing parks, to Swords Main Street and associated services/amenities and to the surrounding public network.

3.7 Road Safety

Traffic collision data has been reviewed for the period of 2005-2016 from the Road Safety Authority (RSA) traffic collision database. This review will assist to identify any potential safety concerns in relation to the existing road network. These incidents are categorised into class of severity, which includes minor (M), serios (S), or fatal (F) collisions. The analysis is shown in Figure 15.

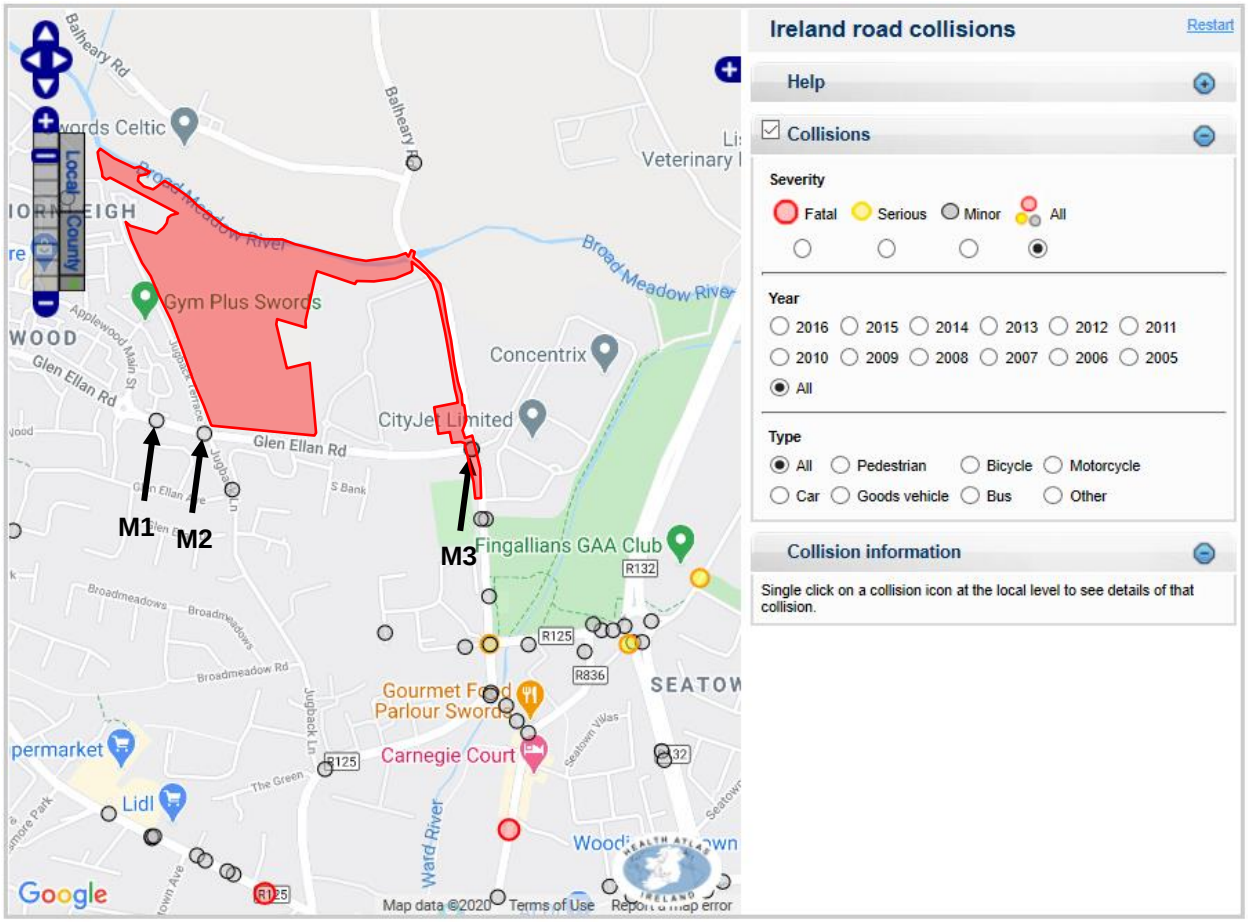


Figure 15 | *RSA Traffic Collision Data 2005 – 2016.*

From the data obtained, there has been several minor, three serious and two fatal collisions that occurred in the area surrounding the subject development site. A summary of three minor collisions that occurred along Glen Ellan Road is presented in Table 5.

Reference	Year	Vehicle	Circumstances	Day of Week	Time	Speed
M1	2015	Car	Head-on Conflict	Sunday	19:00 - 23:00	50Kph
M2	2013	Car	Rear end, straight	Wednesday	19:00 - 23:00	50Kph
M3	2012	Car	Head-on Conflict	Saturday	10:00 - 16:00	50Kph

Table 5 | *Summary of Collisions on Glen Ellan Road Close to the Proposed Development Site.*

4. Transportation Improvements

4.1 Oldtown / Mooretown Local Area Plan (2010-2016 extended to 2020)

The Oldtown / Mooretown Local Area Plan, published by the Planning Department of Fingal County Council in 2010 sets out the development strategy to develop the Oldtown-Mooretown lands in a phased, coordinated and sustainable manner for the period of 2010 to 2016. On 28th July 2015 an extension of duration of the LAP's life has been approved for an additional period of 5 years, from the 13th July 2015 up to the 12th July 2020.

A phasing programme is set out as part of the Oldtown – Mooretown Local Area Plan to ensure that the physical and social infrastructure required for the area is provided. This phasing programme shall occur in 4 phases. Each phase indicates junctions in the vicinity of the proposed development that need upgrade in conjunction with development of the plan lands.

The proposed junctions to be upgraded within each phase and the proposed design solutions are presented below.

As included in the '*Enhancement of Junctions and Roads Outside of Plan Area*' section of the LAP, the Castlegrange Signalised Junction (labelled as Junction 4 within this TTA) is proposed to be upgraded in conjunction with Phase 1 of the Oldtown-Mooretown LAP in order to accommodate the additional traffic resultant of this phase. The suggested enhanced layout is illustrated in Figure 16 below – extracted from the Oldtown/Mooretown LAP.

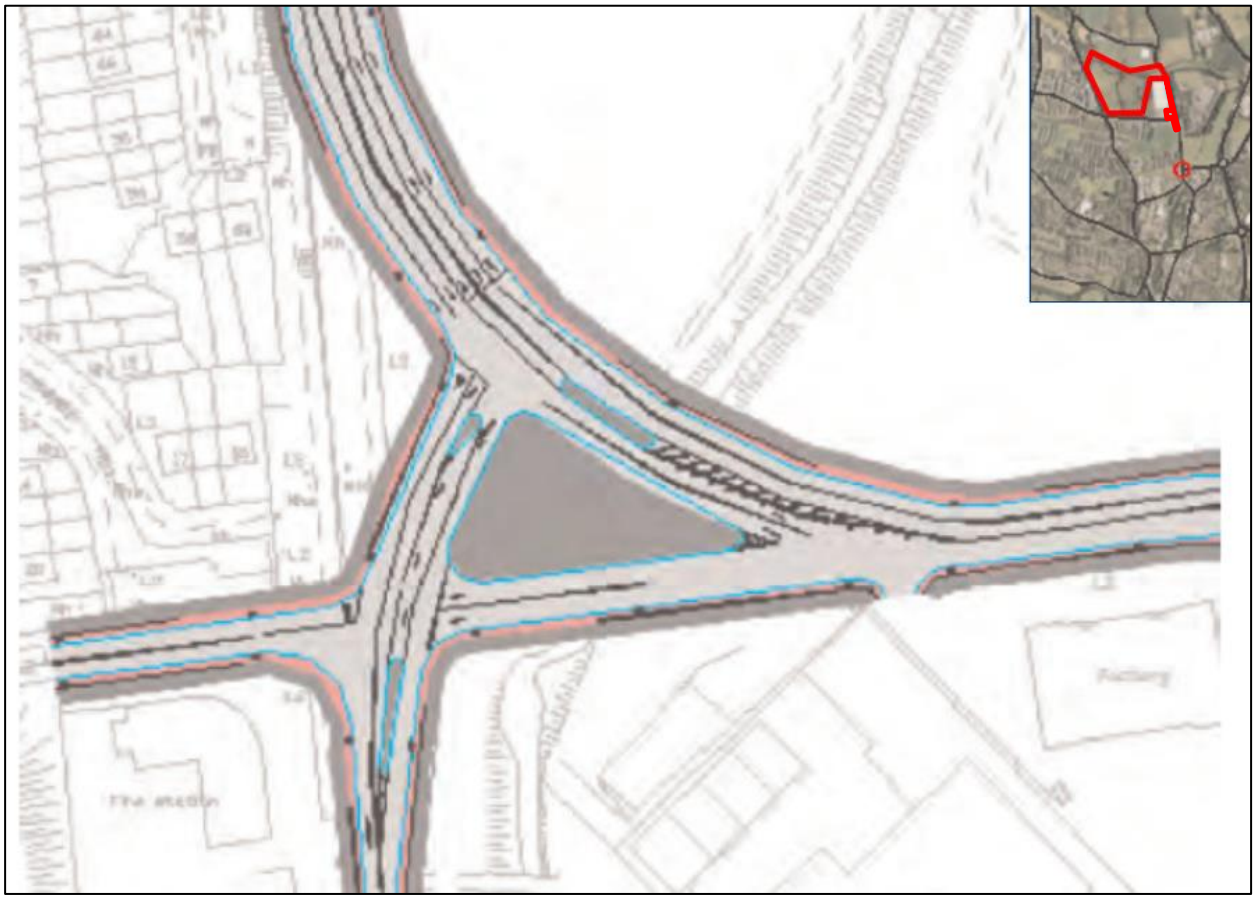


Figure 16 | *Castlegrange Junction Upgrade Proposed Under LAP Phase 1.*

The lands required to carry out the junction upgrade works are within the ownership of the Council.

As part of the Oldtown/Mooretown LAP Phase 2 development, to accommodate the additional traffic resultant of this phase, the Estuary Junction (labelled as Junction 5 within this TTA) is proposed to be upgraded. The proposed upgrade, which is illustrated in Figure 15 - extracted from the Oldtown / Mooretown LAP, involves the replacement of the existing roundabout to a signal-controlled crossroads.

While these improvements are currently identified to be carried out as part of Phase 2 of Oldtown/Mooretown LAP, they can also occur as part of the MetroLink development works, whichever occurs first. The lands required to carry out the junction upgrade works are within the ownership of the council.

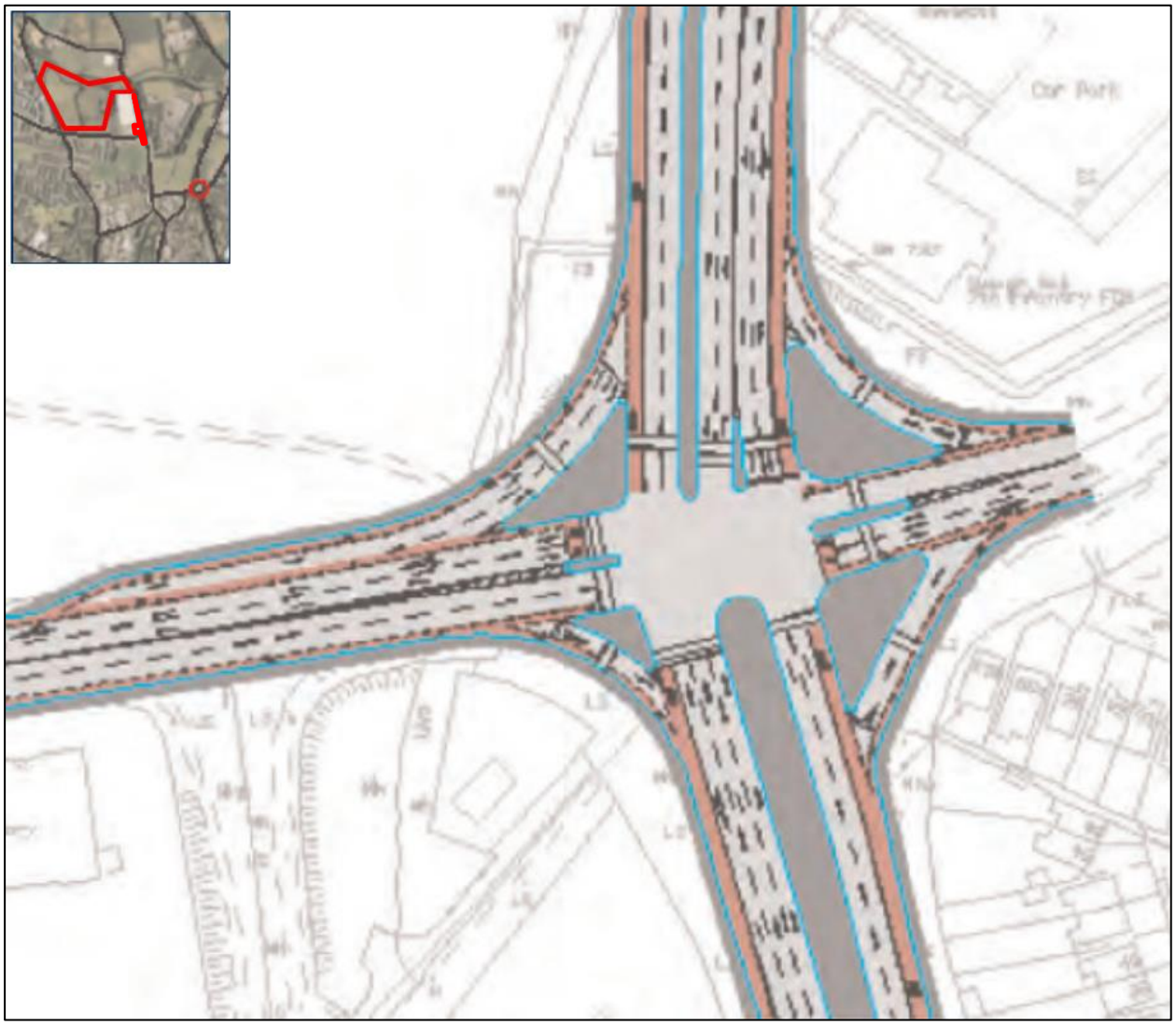


Figure 17 | *Estuary Junction Upgrade Proposed Under LAP Phase 2.*

A third junction is proposed to be upgraded as part of the Oldtotown/Mooretown LAP development, being the Glen Ellan Road / Balheary Road signalised junction (labelled as Junction 3 within this TTA). Improvements to this junction, which are illustrated in Figure 16 – extracted from the Oldtown/ Mooretown LAP, are proposed to be carried out in conjunction with the development of Phase 3 of the Oldtown / Mooretown LAP. Most of the lands required to carry out the junction upgrade works are within the ownership of the council, with a smaller portion owned by GAA.

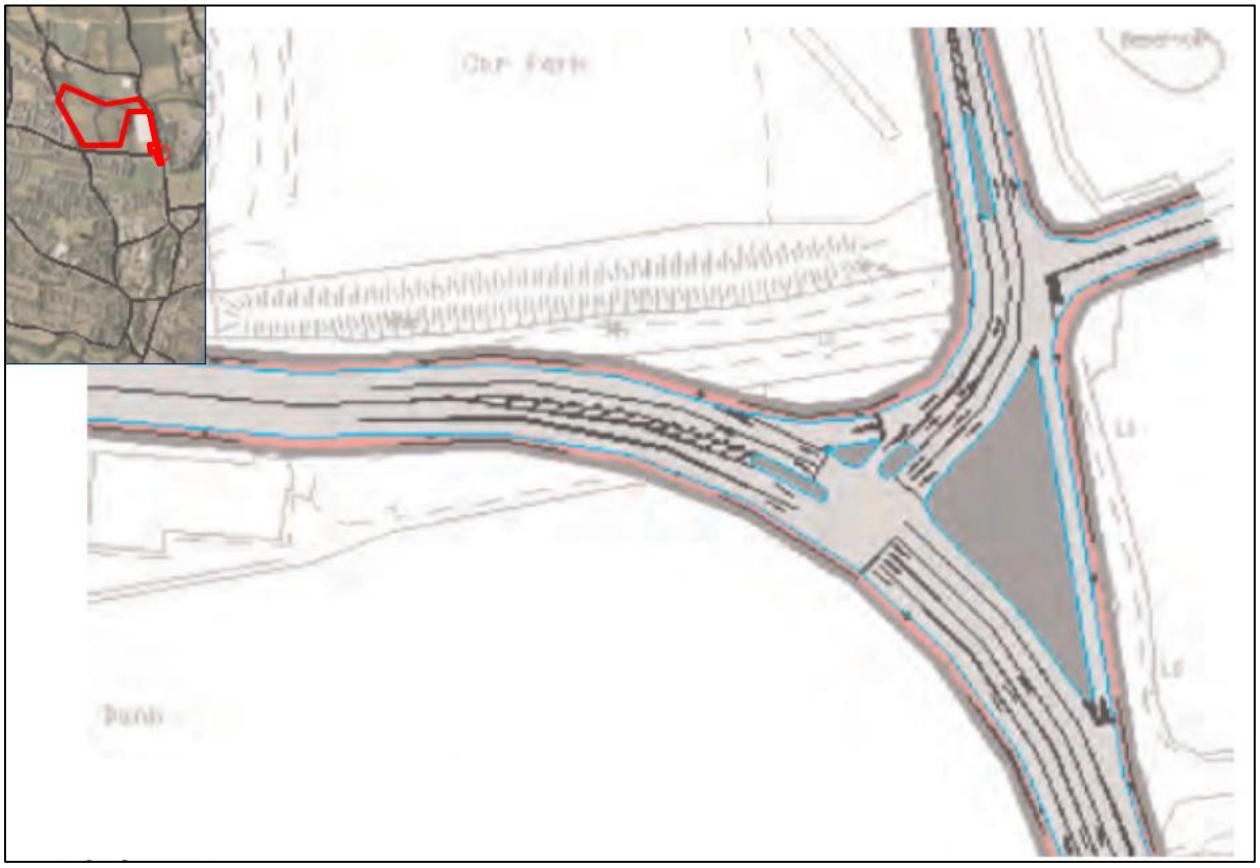


Figure 18 | *Glen Ellan/Balheray Rd. Junction Upgrade Proposed Under LAP Phase 2.*

In conjunction with the above junction improvements, as part of the Oldtown / Mooretown LAP, it is proposed to widen Balheary Road to four lanes over a length of 300m between Glen Ellan Road and the Castlegrange junction. This will encroach on a public park to the east. These improvements will comprise cycle tracks to provide continuous cycle route as part of the overall network of cycling facilities for Swords. It is also proposed to upgrade the 3 existing roundabouts on Glen Ellan Road to cyclist friendly roundabouts. These requirements will be incorporate within Phase 2 of the Oldtown-Mooretown LAP development.

R132 Connectivity project (part of Oldtown/mooretown LAP?)

As part of the upgrade works required, in May 2021 Fingal County Council lodged an application to An Board Pleanala with the following proposals under reference number ABP-310145-21.

- Conversion of Estuary, Seatown and Malahide Road roundabouts to signalised intersections with ‘at-grade’ pedestrian and cyclist crossing points,
- Installation of signalised toucan crossings at 3 no. points along the R132,
- Pedestrian linkages to Chapel Lane and Ashley Avenue at the proposed Chapel Lane toucan crossing,
- Installation of 2 no. turning areas along the R132,
- Carriageway alterations including the establishment of 3m wide bus lanes, 2m wide cycleways and 2m wide pedestrian walkways along each side,
- Reconfiguration of the Drynam Road arm of the Malahide Road Roundabout to link directly to Malahide Road as a one-way road,
- Construction of new bus stops on Malahide Road.
- Installation of a sub-surface attenuation system and landscaping and other ancillary works.

On 20th January 2022, ABP approved with the applications with conditions under case number JP06F.310145.

It is anticipated within the '*Phasing and Implementation'* section of the Part D: Estuary West Masterplan, published by Fingal County Council in May 2019, that these road and junction upgrades proposed as part of the Oldtown / Mooretown LAP are not considered essential for the development of the Estuary Masterplan lands. Therefore, it is understanding that the development proposed as part of this application can be delivery in advance of these aforementioned upgrades.

However, with the objective of increasing the operational capacity of the local road network to accommodate the proposed development traffic in advance to the major improvements planned under the Oldtown – Mooretown LAP, as part of the subject development works, improvements to Glen Ellan Road / Balheary Road (signalised crossroads – Junction 3) and R132 Dublin Road / R125 (roundabout – Junction 5) are proposed. These improvements are presented later in Section 4.8.

4.2 South Fingal Transport Study (SFTS) – February 2019

With the objective to update and refine the development strategy in South Fingal (including Swords) in terms of transportation, in September 2017, Fingal County Council commissioned SYSTRA to carry out the South Fingal Transport Study (SFTS). This study, which was published in February 2019, was prepared in response to Objective MT07 of the Fingal Development Plan 2017-2023 which aimed to "*produce a strategic 'vision' and overall strategy for the proper planning and sustainable development of the study area, based on a sustainable transport and smarter travel approach, planning for all transport modes and needs, whilst also being reflective of road network capacity and modal split assumptions*."

As part of the SFTS, SYSTRA prepared a regional transportation model of the Swords Area. This model includes the strategic transportation demand and infrastructure in the Swords East (where the Estuary West masterplan and the proposed development fall within) and as such provides the strategic traffic and transport assessments for the area in the short to medium terms.

The regional transportation modelling was carried out by SYSTRA using the NTA Eastern Regional Model (ERM). This is a sophisticated strategic model which includes all modes of transport (including active modes) and provides for extensive predictive modelling based on demand forecasting and supply changes in terms of new roads, cycle and public transport infrastructure.

The model has been calibrated and used for predictive analysis of trip distributions by mode, network analysis to identify journey times, junction and road volumes, public transport line flows, etc. for various scenarios of development and infrastructure provision.

In addition, a local area modelling was also carried out by SYSTRA to assess the impact of various scenarios of road infrastructure within the four study areas (Swords South West, Swords East, Swords North West and Swords Centre).

Section 4.2 of the '*South Fingal Transport Study – Swords Sub Report'* sets out details of the Local Area Model (LAM) which was developed based on the Eastern Regional Model (ERM) demand and modal choice.

As set out in Section 4.3 of the same report, various infrastructure scenarios were tested using a combination of the ERM and the LAM. The tested scenarios are presented in Figure 17 below – extracted from '*Figure 4.1 Table of Model Scenarios'* within the SFTS – Swords Sub Report.

Scenario Name	DoMin 2016	DoMin 2027	GDA Strategy	GDA Strategy + MetroLink	CDP Roads
Growth / Schemes	No Growth (2016)	Recognised Housing	Recognised Housing	Recognised Housing	Recognised Housing
		Metro Intensification	Metro Intensification	Metro Intensification	Metro Intensification
Bus Connect			☑	☑	☑
Metro Link				☑	☑
CDP Roads					☑

Figure 19 | *Tested Scenarios – Extracted from Figure 4.1 of SFTS – Swords Sub Report.*

A description of the tested scenarios, as detailed in '*Swords Sub Report'*, are presented below:

> *"**DoMin** assumed no changes are made to the transport network; this scenario, therefore, represents what could happen on the transport network due to population and employment growth if no improvements were made to accommodate the increase travel.*
>
> ***GDA Strategy** assumes the NTA GDA Strategy is implemented with respect to its flagship bus network improvement programme, but without MetroLink or the GDA Cycle Network Plan in Swords.*
>
> ***CPD Roads** includes all potential future road schemes in the main strategic model run, on top of the GDA Strategy Scenario above."*

The road scheme tested includes the Swords Western Distributor Road (SWDR) and its northern and southern extensions as per Figure 18 – extracted from *Figure 5.1* within the '*SFTS – Swords Sub Report'*.

Based on the various modelling scenarios undertaken by SYSTRA, some recommendations for the area surrounding the proposed development have been outlined. These are:

"***SFTS Recommendation 1**: Increasing the number of traffic lanes on Balheary Road is not required in the short term. However, providing bus lanes to enable a high frequency service to run reliably and maintain bus priority through junctions is required to encourage bus use and to limit car use near to present day levels.*"

"***SFTS Recommendation 5**: It is crucial to provide continuous high quality bus and cycle priority along Ardcian Park to Castleview Ext. / Glen Ellan Road / Balheary Road route, and the sections of Forest Road and Rathbeale Road that are subject to congestion, in order to provide the necessary priority to attract sufficient share of trips by bus.*"

"***SFTS Recommendation 13**: Encourage higher density mixed use developments adjacent to the MetroLink stations with improved connectivity for pedestrians and cyclists and provide a controlled level of access to future developments along the R132 Swords Road.*"

In summary, the South Fingal Transport Study (SFTS) identifies the need to improve cycle facilities to encourage a modal shift towards cycling for shorter journeys and improve travel times by bus by creating dedicated bus corridors encouraging a modal shift towards sustainable public transport. The Swords short-term recommendations map can be seen in Figure 18 – extracted from SFTS.

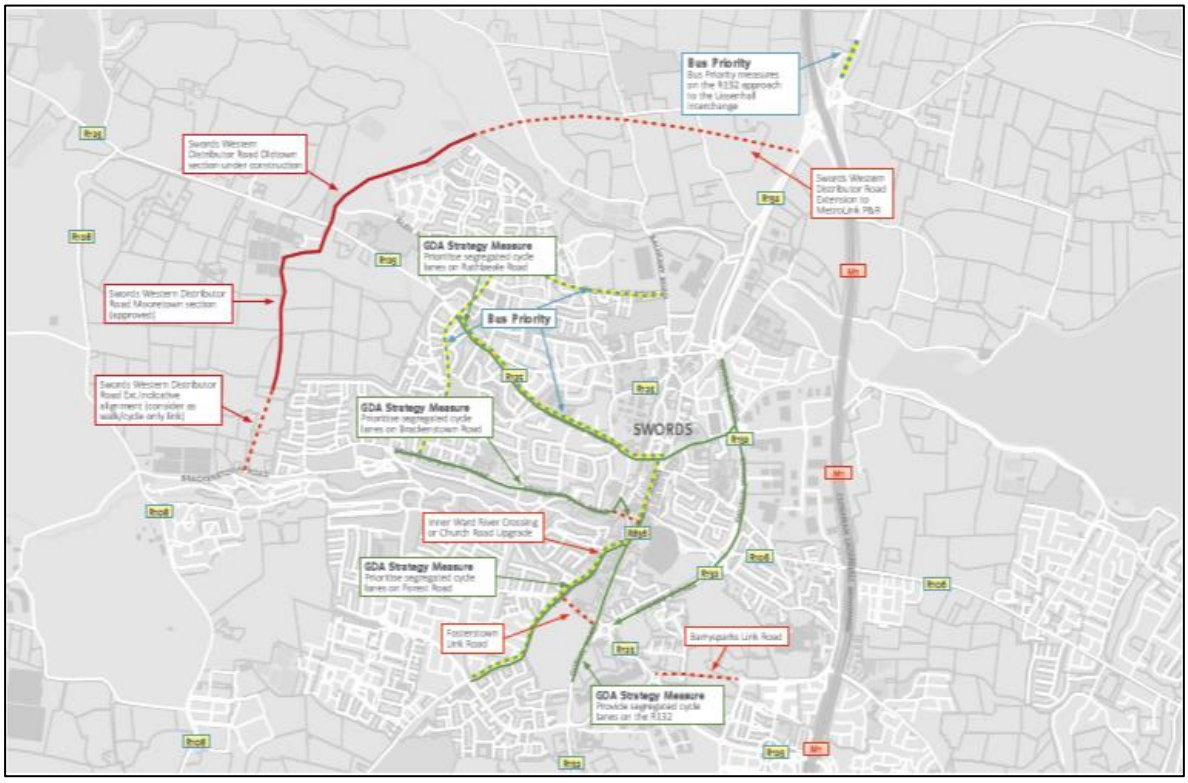


Figure 20 *| Swords Short Term Recommendations Map (SFTS).*

There are a number of recommendations outlined in the report by SYSTRA and Fingal County Council have recognised as outlined in the press release accompanying the publication of the study, that the proposed schemes must be brought through the planning in a timely manner. The press release can be seen in Appendix B of this report.

4.3 MetroLink

MetroLink is a proposed high-capacity, high-frequency rail line running from Swords through Dublin Airport and Dublin City Centre to Charlemont. MetroLink will carry up to 50 million passengers annually, cutting journey times from Swords to the city centre to 25 minutes. The preferred route for MetroLink is currently undergoing consultation and an application for planning approval for the MetroLink Scheme is expected to be made to An Bord Pleanala in Q2 2022. It is anticipated that the construction period would be about six to eight years post planning grant and that the MetroLink service would be operational in early 2030's.

The Estuary Park and Ride station, which is also the terminus of MetroLink is located approximately 1.5km northeast of the proposed site. It will comprise a multi-storey park-and-ride facility with a total of 3,000 car parking spaces. It is envisaged that the introduction of the MetroLink will see a significant modal shift towards public transport resulting in a lower dependence on the private car. The location of the Estuary Park and Ride station in relation to the proposed development site is illustrated in Figure 19 – extracted from MetroLink website.

***Figure 21** | Location Map for Proposed Development Site and Estuary Park and Ride Station.*

Pedestrian/Cyclist access from the proposed development at Estuary West masterplan to the Estuary Park and Ride station will be provided via a green corridor along the southern side of the Broadmeadow River. A portion of this green corridor is proposed as part of the first phase of proposed development works and is in line with the essential and strategic infrastructure identified to be developed as part of the delivery of the Phase 1 of Estuary West masterplan.

4.4 BusConnects

The BusConnects project currently being promoted by the National Transport Authority aims to deliver a much-enhanced bus service to the Greater Dublin Area. The bus routes proposed to directly serve the proposed development site are the **Radial Route 22, Local Routes L21, L82, L83, L85, L89, L197** and **Peak-time Route X79, X84** as per Figure 15.10 below – extracted from BusConnects Local Area Map. A summary of the proposed route of these bus services is presented in Table 15.4. The weekday and weekend frequencies of each route are presented in Table 15.5.

Route No.	From	Via	To
22	**Glen Ellan Rd.**	River Valley	**City Centre**
X79	**Glen Ellan Rd.**	River Valley – City Centre	**UCD**

X84	**Portrane**	Donabate – City Centre	**UCD**
L21	**Dalkey**	-	**Dun Laoghire**
L82	**Swords**	Clonshaugh	**Beaumont Hospital**
L83	**Portrane**	Donabate – Swords	**Airport**
L85	**Balbriggan**	Skerries – Rush/Lusk - Swords	**Airport**
L89	**Airside**	Swords-Knocksedan-Toberburr	**Finglas**
L197	**Ashbourne**	Rolestown	**Swords**
A4	**Swords**	City Centre	**Dundrum**

Table 6 | BusConnects Routes.

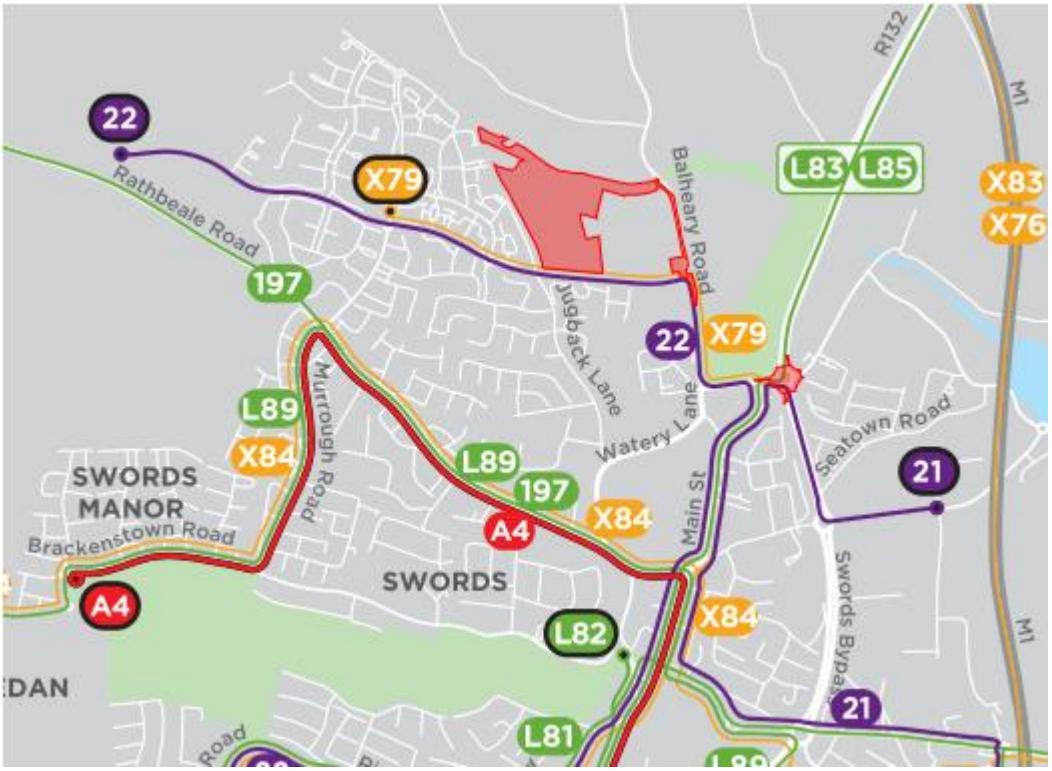


Figure 22 | *BusConnects Routes Map.*

Weekday Frequency					
Route No.	Before 07:00	07:00 to 08:00	08:00 to 17:00	17:00 to 18:00	After 18:00
22	15 to 30 min	15 min	15 min	15 min	15 to 30 min
X79	-	3 services	-	3 services	-
X84	-	3 services	-	3 services	-
L21	60 min	60 min	60 min	60 min	60 min
L82	-	60 min	60 min	60 min	-
L83	30 min	30 min	30 min	30 min	30 to 60 min
L85	30 min	30 min	30 min	30 min	30 to 60 min
L89	-	60 min	6 services	60 min	2 services
L197	1 service	60 min	60 min	60 min	60 min
A4	15 to 30 min	12 min	12 min	12 min	15 to 30 min

Saturday Frequency					
Route No.	Before 07:00	07:00 to 08:00	08:00 to 17:00	17:00 to 18:00	After 18:00
22	20 min	20 min	15 to 20 min	20 min	20 to 30 min
X79	-	-	-	-	-
X84	-	-	-	-	-
L21	60 min	60 min	60 min	60 min	60 min
L82	-	60 min	60 min	60 min	1 service
L83	-	60 min	60 min	60 min	30 to 60 min
L85	60 min	60 min	30 to 60 min	30 min	30 to 60 min
L89	-	1 service	5 services	1 service	services
L197	1 service	60 min	60 min	60 min	60 min
A4	20 min	15 to 20 min	15 min	15 min	20 to 30 min
Sunday Frequency					
Route No.	Before 07:00	07:00 to 08:00	08:00 to 17:00	17:00 to 18:00	After 18:00
22	-	-	20 to 30 min	30 min	30 min
X79	-	-	-	-	-
X84	-	-	-	-	-
L21	-	-	60 min	60 min	60 min
L82	-	-	-	-	-
L83	-	1 service	30 to 60 min	30 min	30 to 60 min
L85	-	1 service	30 to 60 min	30 min	30 to 60 min
L89	-	1 service	4 services	1 service	1 service
L197	-	-	60 min	60 min	60 min
A4	-	-	20 to 30 min	20 min	20 to 30 min

Table 7 | BusConnects Routes Frequencies..

It is estimated that the BusConnects will improve current journey times to the city centre by 40-50% and mitigate against any future increase in journey times. The improved journey time to the city centre will encourage a greater modal shift towards bus service and away from private car.

The proposed BusConnects together with the existing Swords Express service will offer a real alternative for sustainable travel in advance of the completion of the MetroLink.

4.5 Car Sharing

5 No. car sharing spaces have been reserved within the ground floor of the proposed development. It is therefore expected that 5 No. shared car club vehicles will be provided in the proposed development when fully developed and occupied.

4.6 Pedestrian

As part of the Phase 1 of the proposed development works, a green corridor is proposed on the north portion of the site along the southern side of the Broadmeadow River. This green corridor, which is line with both Estuary West masterplan's essential infrastructure and the cycle network plan for the Greater Dublin Area (See Figure 23 below), will facilitate connection to the proposed regional park to the west and pedestrian/cyclist progression towards R132, the new Estuary Metrolink Station and the Broadmeadow Estuary to the east.

4.7 Greater Dublin Area Cycle Network Plan

Proposals for the Greater Dublin Area Cycle Network Plan were published by the National Transport Authority in December 2013. The plan sets out a vision and a strategy for the construction and/or designation of a comprehensive network of cycling routes throughout the Greater Dublin Area (Counties Dublin, Meath, Kildare and Wicklow).

An extract from Sheet N9 (Proposed Cycle Network Swords & Malahide) is reproduced in Figure 21 below.

Figure 23 | *Proposed Cycle Network Upgrades.*

As can be seen from the above, two cycle routes are proposed in the vicinity of the subject development site, being the greenway Route FG2 to the north of the site and Route SW7 to the south.

As described in Section 4.6 of this report, a portion of the greenway Route FG2 along Broadmeadow River is proposed as part of the subject development works. A dedicated cycle lane on the north side of Glen Ellan Road along the site frontage is also proposed and will form part of the Route SW7.

4.8 Roads and Junctions

4.8.1 Glen Ellan Road / Balheary Road - Proposed Junction Upgrade

As part of subject development works, minor alterations to the existing Glen Ellan Road / Balheary Road signalised junction layout are proposed. These alterations consist of:

- Traffic traveling from Glen Ellan Road (W) will have a right turning lane and a lane allowing forward, left and right turning movements.
- Traffic traveling from Balheary Road (S) will have one lane for left turning movement and one lane for straight and right turning movement. Balheary Road (S) will also comprise of two exit lanes.
- Provision of advanced stop lines for cyclists on Glen Ellan Road (W) and Balheary Road (S).

These proposed improvements will only require a small portion of the green site to the west of the Balheary Road (S). The lands required to carry out the junction upgrade works are within the ownership of the council. Details of the proposed layout are set out on our enclosed Waterman Moylan Drg. No. 17-088-P014.

4.8.2 R132 Dublin Road / R125 – Proposed Junction Upgrade

As part of subject development works, a minor alteration on the existing R132 Dublin Road / R125 roundabout configuration is also proposed. This alteration consists of:

- The signalisation of this roundabout with only the eastern approach remaining as priority controlled.
- Provision of dedicated cycle lanes on the northern, western and southern approaches to the junction, with advanced stop lines for cyclists.
- Provision of a network of footpaths with dedicated pedestrian crossings and safe barriers on the western, southern and eastern approaches to the junction.

To undertake this junction upgrade, no additional lanes are required. Details of the proposed layout are set out on our enclosed Waterman Moylan Drg. No. 17-088-P013.

5. Proposed Development

5.1 Site Location and Zoning

The subject site is located on the west portion of the Estuary West masterplan lands. It is bounded to the south by the Glen Ellan Road, to the west by residential estates (Applewood and Thornleigh), to the east by a disused industrial building and associated carpark which forms part of the Estuary West Masterplan and to the north by the Broadmeadow River and green lands.

According to the Swords Masterplans – Part D: Estuary West, the subject site is situated in a future residential area which is zoned as '*ME - Metro Economic Corridor*' within the Fingal Development Plan 2017 – 2023. The Development Plan describes the ME zone as follows:

"*Facilitate opportunities for high density mixed-use employment generating activity and commercial development, and support provision of an appropriate quantum of residential development within the Metro Economic Corridor*."

5.2 Development Description

The proposed scheme will consist of the development of the existing 8.92 Ha (net site area/developable area) to provide a total of 621 no. residential units comprising a mix of housing typologies, duplexes and apartments together with a Creche facility (506.5 sqm). The detailed breakdown of the proposed residential scheme is as follows:

Typology	1Bed	2Bed	3Bed	4Bed	Total
Houses/Maisonettes	8	-	99	11	118
Duplexes	-	77	77	-	154
Apartments	137	201	11	-	349
Total	145	278	187	11	621

Table 8 | *Breakdown of Proposed Schedule of Accommodation.*

5.3 Phasing Programme

It is proposed that the subject development will be delivered in three distinct phases.

- **Phase 1**: programmed to be fully developed and occupied by the end of 2023, will consist of the development of 118 No. houses/maisonettes and 78 No. duplexes in the centre-north-west portion of the site. The green corridor along Broadmeadow River and the majority of the internal road network will also be delivered as part of Phase 1 development works.
- **Phase 2**: programmed to be fully developed and occupied by the end of 2025, will consist of the development of 76 No. duplexes in the north-east portion of the site.
- **Phase 3**: programmed to be fully developed and occupied by the end of 2027, will consist of the development of 349 No. apartments in the south portion of the site. The creche facility will also be delivered as part of Phase 3 development.

The proposed phasing plan is illustrated in Figure 22.

5.4 Vehicular Access Points

Main vehicular access to the subject development is proposed from south via a new priority-controlled T-junction on Glen Ellan Road. The visibility splay requirements for this vehicular access are based on the 50kph design speed limit. The sightline requirements for a new priority junction on 50kph road are identified within DMURS which recommends a visibility splay of 49m x 2.4m on roads with bus routes.

A secondary vehicular access will be provided from west via Jugback Lane/Terrace. This additional access will be constructed to primarily provide connectivity to the adjacent Applewood Village and all its associated services/amenities. Visibility splay for this junction has also been designed in accordance with DMURS requirements for junction on 30kph without bus routes, which is 23m x 2.4m.

An allowance for future traffic and pedestrian/cycle links has also been proposed to facilitate a connection between the site and any potential future development to the east of the subject site.

Figure 22 below illustrates the location of the access points proposed to serve the subject development. Details of the designed sightlines for the proposed site access junctions are shown on Waterman Moylan Drg. No. 17-088-P010 accompanying the documentation package.

Figure 24 | *Proposed Development Phasing Plan and Access Points to the Site.*

5.5 Internal Layout

All internal roads in the proposed development are designed for a speed limit of 30kph with 5.0m wide carriageways and footpaths along both sides. All intersections within the development itself will be priority junctions with raised tables where appropriate. The low design speeds and traffic calming measures will ensure the safe operation of these junctions and a safe/secure environment for pedestrians and cyclists.

The design and layout of the proposal has been prepared to fully comply with the current relevant design standards and specifications applicable to this form of development.

5.6 Pedestrian and Cyclist Infrastructure

All footpaths proposed for the subject development will be provided in accordance with Section 4.3.1 of the DMURS which suggests that a minimum 1.8m footpath should be provided. All the proposed cycle tracks are designed in accordance with the National Cycle Manual. These proposed pedestrian/cycle facilities will connect to the existing facilities in the vicinity of the site and will provide a good quality and safe/secure network for pedestrians and cyclists.

The pedestrian/cyclist infrastructure proposed for the subject development consists of a north-south spine running along the centre of the site leading to the proposed main vehicular access on Glen Ellan Road, and a west-east spine running from the proposed western vehicular access point on Jugback Lane/Terrace up until Balheary Road further east. The eastern section of the west-east spine will form part of the green corridor along the south side of Broadmeadow River.

These proposed spines will be connected internally within the site and will facilitate safe and secure pedestrian/cyclist progressions towards the bus stops on Glen Ellan Road, the existing services/amenities at Applewood Village and the future Estuary Metrolink Station.

5.7 Resident Population

With the objective to obtain information regarding ‘population’ and ‘number of households’, the existing residential areas to the west and south of the proposed development site have been consulted under Census 2016 SapMaps.

Census 2016 was carried out by the Central Statistics Office on 24th April 2016. For the purpose of the survey, the residential areas to the west and south of the proposed development site have been divided into 28 Small Areas as per Figure 23 below.

During the 2016 Census, the resident population in these Small Areas was 8,414 persons in 2,718 housing units equivalent to 3.10 persons per unit. The number of houses and respective population in each consulted Small Area is provided in Appendix C.

On the basis of 621 residential units and an average of 3.10 persons per unit as recorded by Census 2016, it is estimated that the overall proposed development (Phases 1 to 3) will have a resident population of up to 1,926 persons when fully completed and occupied. Given the type of units and density of the scheme it is expected the actual population will be slightly lower than this, but for the purpose of this assessment the higher end figure will be used.

- Phase 1: 196 units x 3.10 persons per unit : 608 persons
- Phase 2: 76 units x 3.10 persons per unit : 236 persons
- Phase 3: 349 units x 3.10 persons per unit : 1,082 persons
- **Overall Development**: 621 units x 3.10 persons per unit : 1,926 persons

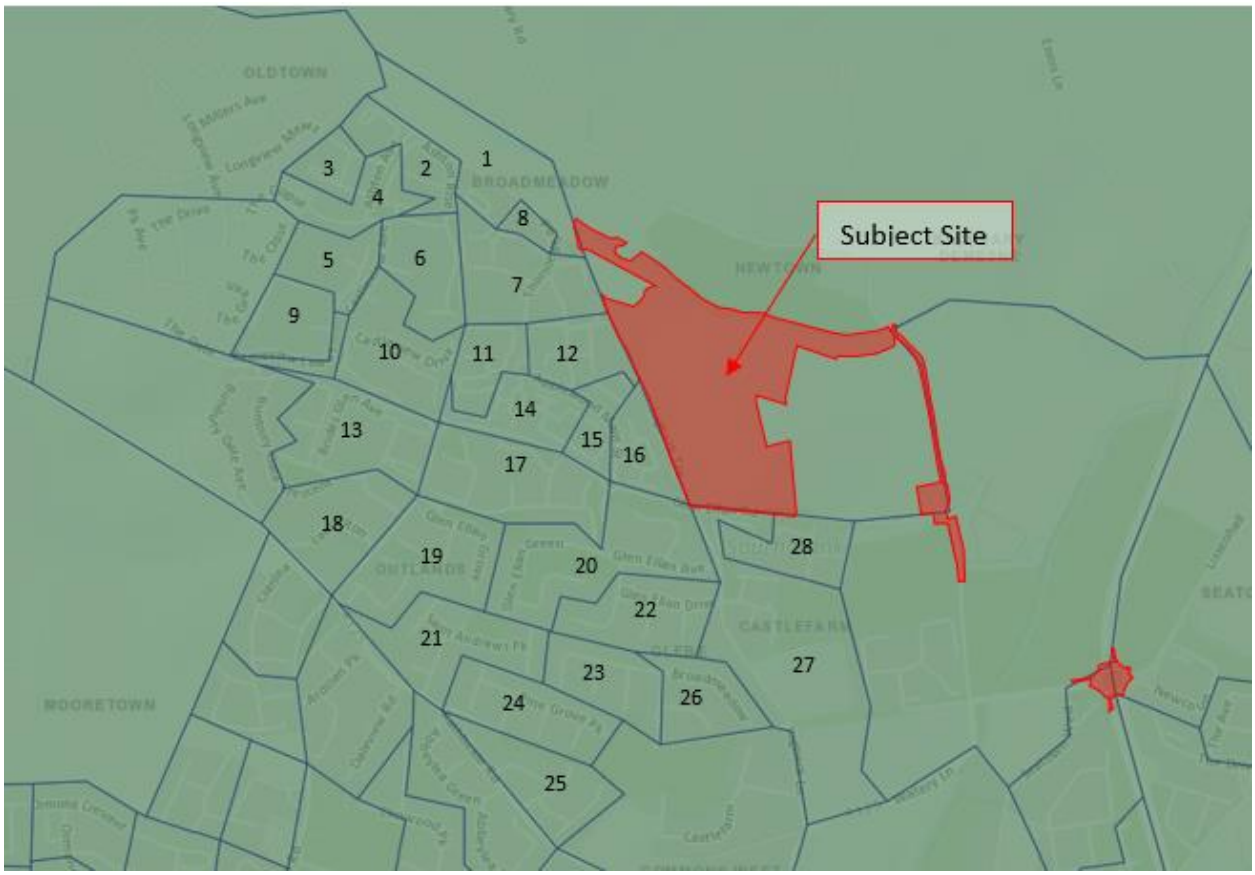


Figure 25 | *Location Map for Proposed Development and Consulted Small Areas.*

5.8 Access to Refuse Vehicles and Fire Tenders

The proposed development at Estuary West Masterplan will be accessible for refuse vehicles/fire tenders. Turning path layout is shown on the Waterman Moylan Drg No.'s 17-088-P005/P007 accompanying the subject application.

6. Accessibility of the Site

This section of the report describes the accessibility of the proposed development site for pedestrians and cyclists. It is clear that high quality and extensive provision of walking, cycling and public transport facilities are key elements to support in the reduction of the private car usage.

6.1 Walking Accessibility

The "Guidelines for Providing for Journeys on Foot" published by The Institution of Highways & Transportation in 2000 indicates that acceptable walking distances will vary between individuals and circumstances, such as an individual's fitness, physical ability and personal motivation; the size of the city itself and the quality of the surrounding footpath network. This document also suggests walking distances and times based on an average walking speed of 1.4m/sec (approximately 400m in five minutes). Table 7 below summarises these suggested distances and times.

	Town Centres	Commuting / School Sight-seeing	Elsewhere
Desirable	200m (2.5 minutes)	500m (6 minutes)	400m (5 minutes)
Acceptable	400m (5 minutes)	1,000m (12 minutes)	800m (10 minutes)
Preferred Maximum	800m (10 minutes)	2,000m (24 minutes)	1,200m (15 minutes)

Table 9 | *Suggested Walking Distances (Source: Guidelines for Providing for Journeys on Foot).*

Figure 24 below details the 10-minute, 15-minute and 25-minute catchments through the form of isochrones to summarise the accessibility of the subject site on foot (Preferred Maximum) to Town Centres, Elsewhere and Commuting / School Sight-seeing, respectively, as per Table 7 above.

From Figure 24, it can be seen that the services/amenities in Applewood Village can be reached within the range of 10-minute walking and the Swords Business Campus and some primary/post-primary schools can be reached within the walking range of 25 minutes.

The network of footpath in the immediate vicinity of the site is currently identified as safe and comfortable for all users, with dedicated pedestrian crossings, dropped kerbs and tactile pavement provided.

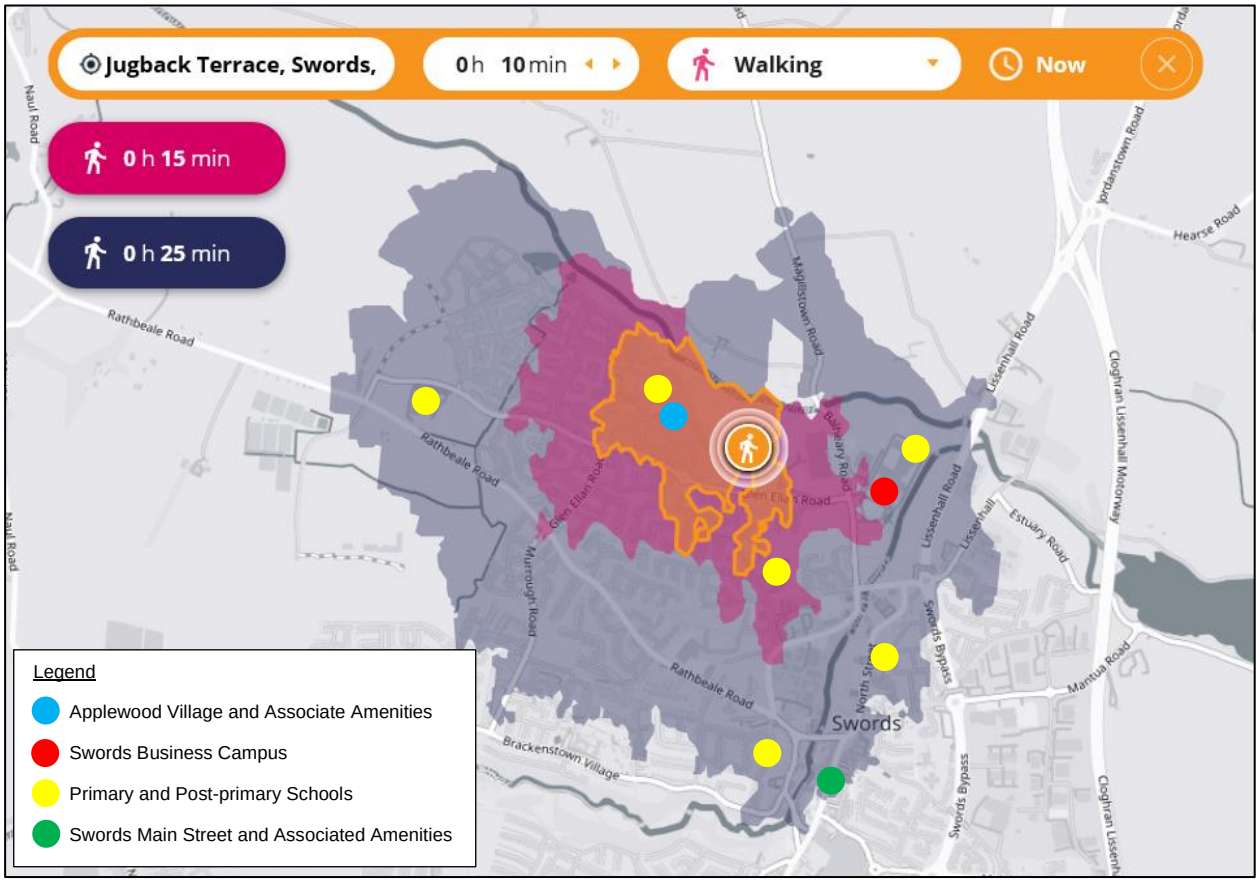


***Figure 26** | Walking Catchments from the Subject Site.*

6.2 Cycling Accessibility

As presented for walking, a similar catchment exercise has also been undertaken for the cycling mode of transport. Based on an average cycling speed of 3.3m/s (i.e. 15km/h), Figure 25 below illustrates a 15-minute cycling isochrone to summarise the accessibility of the site by bike. A 15-minute cycling time equates to a distance of approximately 3.0km.

From Figure 25, it can be seen that a number of employments, commercial and educational facilities are reached within the range of 15-minute cycle time.

The reached facilities and developments include the Swords Pavilions Shopping Centre, Swords Main Street and associated amenities, the Swords Business Park, the Airside Retail Park/Business Park and a number of primary and post-primary schools.

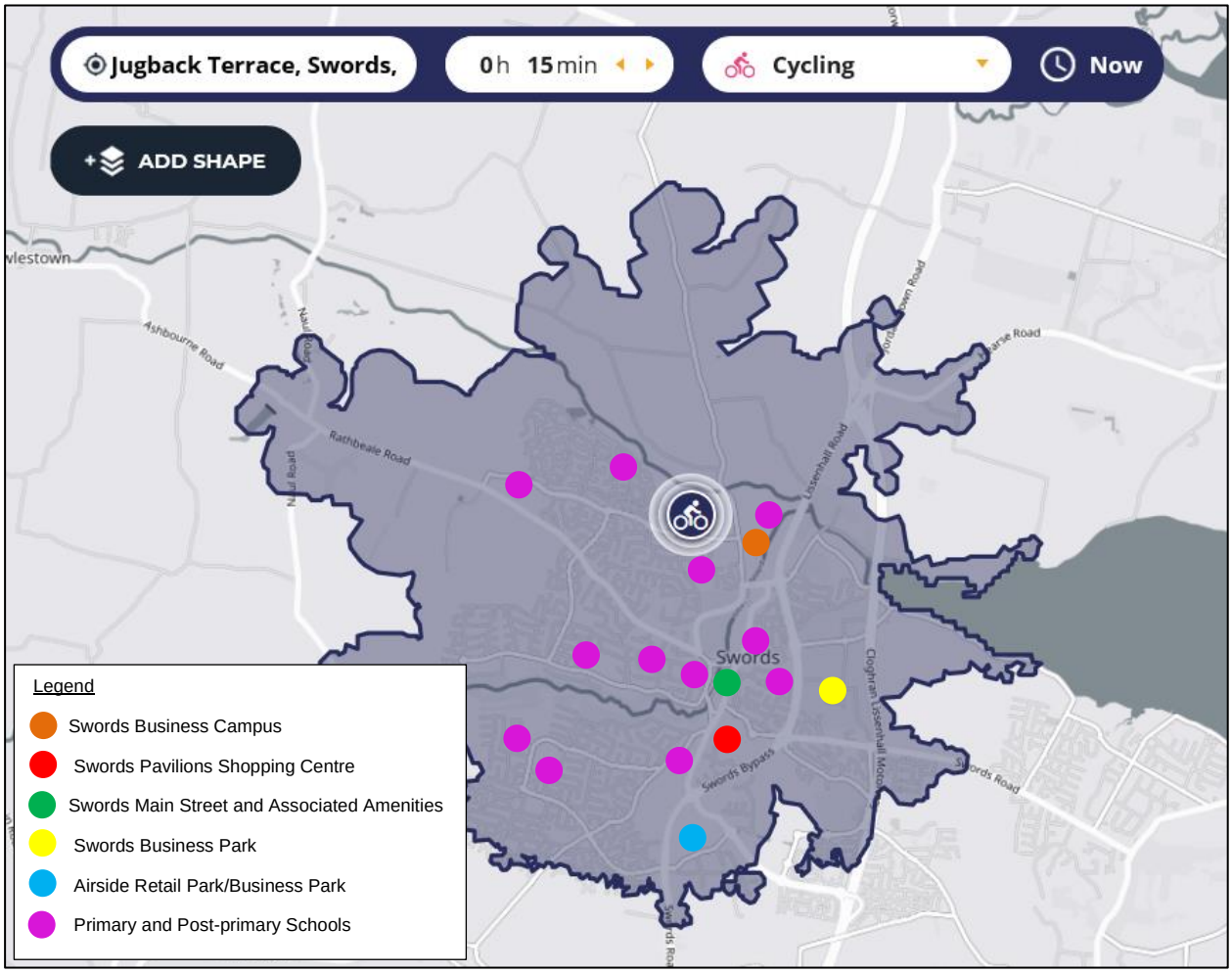


Figure 27 | *Cycling Catchment from the Subject Site.*

7. Swords Masterplans - Part D: Estuary West (May 2019)

7.1 Vision

According to '*The Vision*' for Estuary West Masterplan as set out in the Swords Masterplans Part D: Estuary West (May 2019), the "*Estuary West will become a vibrant residential and mixed-use community, with active and friendly streetscapes. The aim is to produce an exemplary environment; a place that is desirable to live and one which balances usable private space within an overall structure of high quality public spaces. The community will be prioritised, with parks, open space and public plazas filtered throughout*."

7.2 Phasing and Implementation

The two Key Phasing and Implementation Objectives for the Estuary West Masterplan lands as set out in the Part D: Estuary West Masterplan are:

- "*Development within the Masterplan area shall be phased in order to manage the impact of the development envisaged on the surrounding area and in particular on existing transport infrastructure throughout Swords.*
- *No more than 25-30% of the overall quantum of development envisaged shall be constructed and occupied prior to the operation of MetroLink*."

The phasing programme of the Estuary West masterplan is shown in Table 8 below.

Phase 1 (Prior to MetroLink operation)	Residential development comprising 320 - 350 residential units
	New School to accommodate c. 400 pupils
	Local centre with 3,000 - 4,000 sqm of area
Phase 2	Commercial development with 18,000 - 20,000 sqm of floorspace
	Residential development comprising 520 - 570 residential units
Phase 3	Residential development comprising 60 – 80 residential units

Table 10 | *Estuary West Masterplan – Phasing Programme.*

7.3 Proposed Development Phasing

The proposed scheme consists of the development of 621 No. residential units comprising of 118 no. houses/maisonettes, 154 No. duplexes and 349 No. apartments together with a Creche facility. It is proposed that the subject development will be delivered in the following three phases.

Phase 1 will consist of the development of 118 No. houses/maisonettes and 78 No. duplexes.

Phase 2 will consist of the development of 76 No. duplexes.

Phases 1 and 2 will comprise a total of 272 No. residential units and, as per Table 8 above, can therefore be delivered as part of the Phase 1 of Estuary West masterplan (prior to Metrolink operation).

Phases 1 and 2 of the subject development are proposed to be opened in 2023 and 2025, respectively.

Phase 3 will consist of the development of 349 No. apartments and the creche.

Due to the number of residential units proposed in this phase, as per Table 8 above and to coordinate with the operation of Metrolink, this phase is programmed to be delivered during Phase 2 of Estuary West masterplan (not before MetroLink) unless otherwise agreed with Fingal County Council. As Metrolink is projected to be operational by early 2031's, Phase 3 of the subject development is proposed to be

completed in early 2031's. Any early occupation of any units within this Phase will be subject to the agreement of Fingal County Council The delayed delivery of MetroLink may be mitigated against through the provision of increased frequency bus services in the interim. This increased bus provision may permit increased development in the Masterplan area in advance of MetroLink, including some or all of the Phase 3 housing project and would subject to the agreement of Fingal County Council.

8. Trip Generation

8.1 TRICS Car Trip Rates

In order to assess the likely impact of the traffic generation arising from the proposed development, TRICS Database has been interrogated. TRICS is the national standard of trip generation and analysis in Ireland. It is a database system which allows users to identify representative trip rates and to establish potential levels of trip generation for a wide variety of developments.

During TRICS interrogation, the sub-category '03 – RESIDENTIAL / K – MIXED PRIVATE HOUSING' and the GREATER DUBLIN region has been applied, being the most appropriate for this residential development type. Full trip rates, which were sourced from the TRICS Database Version 7.5.1, have been provided in Appendix D and are summarised in Table 9 below.

Land Use	Period	Calculation Factor	TRICS Trip Rates	
			Arrivals	Departures
Mixed Private Housing	AM (08:00 – 09:00)	Per Unit	0.144	0.303
	PM (17:00 – 18:00)	Per Unit	0.277	0.176

Table 11 | *TRICS Peak Hour Car Trip Rates.*

8.2 Modal Split – Swords Sub Area Report - South Fingal Transport Study

The Swords Sub Area Report, prepared by SYSTRA in 2019 as part of the overall South Fingal Transport Study, places emphasis on the NTA Statement of Strategy (2018 – 2022) which includes as a priority the promotion of more sustainable modes of transport (e.g. public transport and active modes of travel).

The design year of the Swords Sub Area Report is 2027. The selection of this year was to coordinate with the expected completion of the MetroLink project.

According to Section 2.3.1 of the '*Swords Sub Area Report'*, the proposed development falls within the 'East Sector' of Swords. See Figure 27 – extracted from '*Figure 2.2 Swords Sectors'* of the Swords Sub Area Report.

Section 4.4.2.3 of the '*Swords Sub Area Report'* provides a comparison between four distinct scenarios (DoMin 2016, DoMin 2027 and GDA Strategy No Metro 2027 and MetroLink 2027) to identify potential future changes in modal choice for the 'Swords East Sector' for the future year of 2027 with and without the implementation of the GDA Strategy and the MetroLink. The GDA Strategy includes the GDA Cycle Network Plan and the Bus Connects Project.

The chart below – extracted from '*Figure 4.5 Trip Generation by Mode, Swords East'* within the *'Swords Sub Area Report'*, indicates that during Census 2016, the modal split in the Swords East sector was 62% by Car, 17% by Public Transport, 19% by Walk and 3% by Cycle.

For the future design year of 2027, with the GDA Strategy implemented (GDA Strategy No Metro 2027), as per chart below, a decrease in the proportion of trips by car and an increase in the proportion of trips by public transport will occur. This recorded modal split change is expected to be achieved only with the improvements on cycle facilities (as per GDA Cycle Network Plan) and the implementation of the Bus Connects scheme creating dedicated bus corridors. The proportion of use of public transport will be even higher with the implementation of the MetroLink (at 30%).

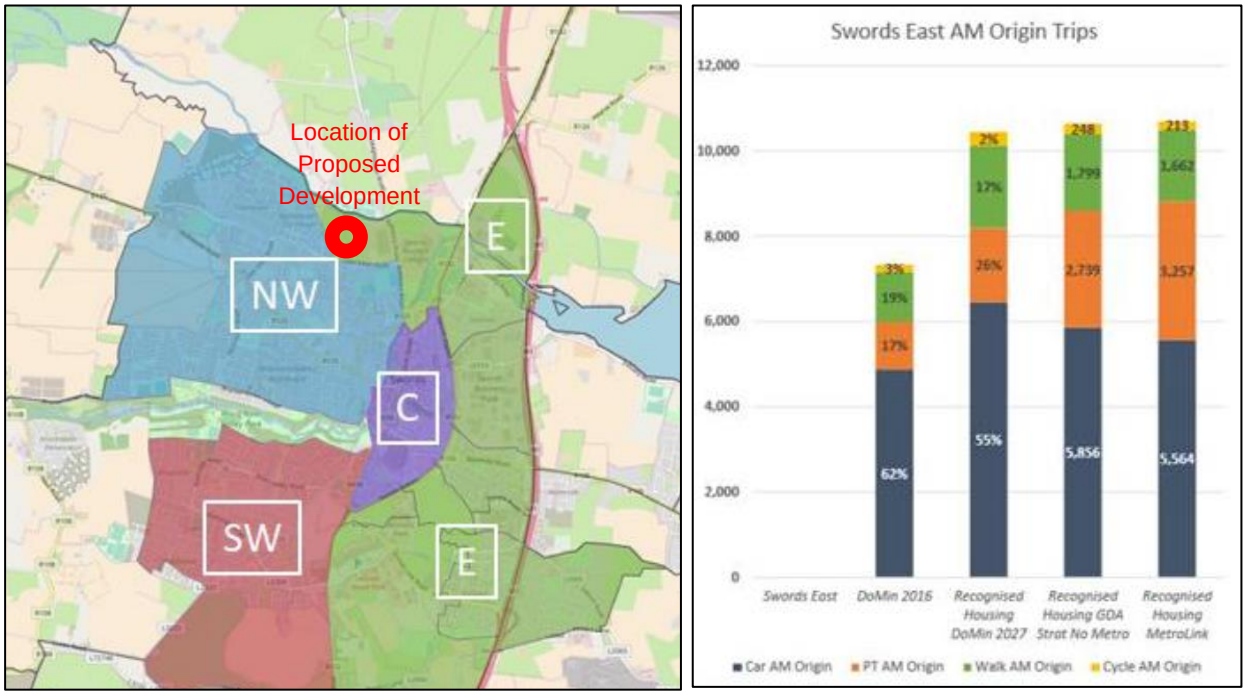


***Figure 28** | Location Map for Proposed Dev. at Swords East sector and Modal Split Changes.*

Table 10 below shows a comparison between the recorded modal split during Census 2016 and the forecast modal split expected to be achieved in 2027 as a result of the implementation of GDA Strategy and the operation of MetroLink.

Mode	Census 2016	GDA Strategy + MetroLink 2027
Car	62%	52%
Public Transport	17%	30%
Walk	19%	16%
Cycle	3%	2%
Total	100%	100%

***Table 12** | Summary of Modal Split Changes as per Swords Sub Area Report.*

8.3 Peak Hour Trip Generation

8.3.1 Phase 1 of Proposed Development (2023)

The calculated car trips for the Phase 1 of the proposed development in 2023 is presented below. These have been based on:

- A proposed Phase 1 development comprising 196 No. residential units (118 No. houses/maisonettes and 78 No. duplexes).
- An estimated residential population of up to 608 persons.
- An opening year of 2023.
- The TRICS car trip rates from Table 9.
- An AM Peak Hour of 08h00 – 09h00 and PM Peak Hour of 17h00 – 18h00.

Proposed Development	AM Peak Hour		PM Peak Hour	
	Car Trips IN	Car Trips OUT	Car Trips IN	Car Trips OUT
Phase 1 (196 No. units)	28	59	54	35

***Table 13** | Car Trip Generation – Phase 1 of Proposed Development - 2023.*

It can be seen from the above that the Phase 1 of the proposed development is expected to generate a total of 87 car trips during the AM peak hour (28 inbound and 59 outbound) and a total of 89 car trips during the PM peak hour (54 inbound and 35 outbound).

Based on the car trip generation in Table 11 above and the Census 2016 Modal Split as presented in Table 10, the multi-modal trips for the Phase 1 were estimated.

While the modal split based on the implementation of the GDA Strategy + MetroLink is expected to be achieved in 2027, as Phase 1 may be constructed and occupied in 2023 - prior to the implementation of the full GDA Strategy + MetroLink, for the purpose of this assessment the Census 2016 Modal Split has been used to derive the multi-modal trips of Phase 1.

The calculated multi-modal trips for the proposed Phase 1 are presented in Table 12 below. These have been based on:

- Car trip generation in Table 11 (equivalent to 62% as per Census 2016 Modal Split – Table 10).
- The Census 2016 Modal Split in Table 10.

Mode	Modal Split (Census 2016)	AM Peak Hour		PM Peak Hour	
		Total Trips IN	Total Trips OUT	Total Trips IN	Total Trips OUT
Car	62%	28	59	54	35
Public Transport	17%	8	16	15	10
Walk	19%	9	18	17	11
Cycle	3%	1	3	3	2
Total	**100%**	**46**	**96**	**89**	**58**

***Table 14** | Multi-modal Trip Generation – Phase 1 of Proposed Development - 2023.*

From Table 12 above, it can be seen that, in 2023, the Phase 1 will generate a total of 142 multi-modal trips in the AM peak hour (46 inbound and 96 outbound) and a total of 147 multi-modal trips in the PM peak hour (89 inbound and 58 outbound).

8.3.2 Phases 1 and 2 of Proposed Development (2025)

The calculated car trips for the Phases 1 and 2 of the proposed development in 2025 is presented below. These have been based on:

- A cumulative development of Phase 1 + Phase 2 comprising 272 No. residential units (118 No. houses/maisonettes and 154 No. duplexes).
- An estimated residential population of up to 844 persons.
- Phase 2 opening year of 2025.
- The TRICS car trip rates from Table 9.
- An AM Peak Hour of 08h00 – 09h00 and PM Peak Hour of 17h00 – 18h00

Proposed Development	AM Peak Hour		PM Peak Hour	
	Car Trips IN	Car Trips OUT	Car Trips IN	Car Trips OUT
Phases 1 + 2 (272 no. units)	39	82	75	48

Table 15 | *Car Trip Generation – Phases 1 and 2 of Proposed Development - 2025.*

It can be seen from the above that the Phase 1 and Phase 2 of the proposed development are expected to generate a total of 121 car trips during the AM peak hour (39 inbound and 82 outbound) and a total of 132 car trips during the PM peak hour (75 inbound and 48 outbound).

As per Phase 1, Phase 2 may also be constructed and occupied prior to the implementation of the full GDA Strategy + MetroLink. Therefore, the Modal Split recorded during Census 2016 has also been used to derive the multi-modal trips for the cumulative development of Phase 1 + Phase 2 in 2025.

The calculated multi-modal trips for the proposed cumulative development of Phase 1 + Phase 2 are presented in Table 14 below. These have been based on:

- Car trip generation in Table 13 (equivalent to 62% as per Census 2016 Modal Split – Table 10).
- The Census 2016 Modal Split in Table 10.

Mode	Modal Split (Census 2016)	AM Peak Hour		PM Peak Hour	
		Total Trips IN	Total Trips OUT	Total Trips IN	Total Trips OUT
Car	62%	39	82	75	48
Public Transport	17%	11	23	21	13
Walk	19%	12	25	23	15
Cycle	3%	2	4	4	2
Total	**100%**	**64**	**134**	**123**	**78**

Table 16 | *Multi-modal Trip Generation-Phases 1 and 2 of Proposed Development-2025.*

From Table 14 above, it can be seen that, in 2025, the cumulative development of Phase 1 + Phase 2 is expected to generate a total of 198 multi-modal trips in the AM peak hour (64 inbound and 134 outbound) and a total of 201 multi-modal trips in the PM peak hour (123 inbound and 78 outbound).

8.3.3 Phases 1, 2 and 3 of Proposed Development (2027)

The calculated car trips for the cumulative development of Phase 1 + Phase 2 + Phase 3 in 2027 is presented in Table 15 below. These have been based on:

- A cumulative development of Phase 1 + Phase 2 + Phase 3 (Overall development) comprising 621 no. residential units (118 No. houses/maisonettes, 154 No. duplexes and 349 No. apartments).
- An estimated residential population of 1,926 persons.
- Phase 3 opening year of 2027.
- The TRICS car trip rates from Table 9.
- An AM Peak Hour of 08h00 – 09h00 and PM Peak Hour of 17h00 – 18h00

Proposed Development	AM Peak Hour		PM Peak Hour	
	Car Trips IN	Car Trips OUT	Car Trips IN	Car Trips OUT
Phases 1 + 2 + 3 (621 no. units)	89	188	172	109

Table 17 | *Car Trip Generation – Phases 1, 2 and 3 of Proposed Development - 2027.*

As presented previously in Section 7.3, Phase 3 of the proposed development can only be delivered as part of the Phase 2 of Estuary West masterplan with the MetroLink and Bus Connects or Bus Connects and an interim enhanced bus service operational by 2027. At that stage, as described in Section 8.2, a decrease in the proportion of trips by car and an increase in the proportion of trips by public transport is likely to occur as a reflection of the Bus Connects and MetroLink operation. This reduction in the proportion of car trips is at a scale of 10% (from 62% during Census 2016 to 52% in 2027 with GDA Strategy + MetroLink in place – See Table 10). Based on that, with the objective of representing this decrease, the calculated car trips in Table 15 have been reduced by 6% overall to reflect a slightly edced public transport provision and the results are shown in Table 16 below. The proposed development will encourage a shift towards public transport by residents by facilitating safe and secure pedestrian/cyclist progressions towards the bus stops on Glen Ellan Road and the future Estuary Metrolink Station. Furthermore, the use of private car by residents will be further discouraged as the development proposals include a lower ratio of car parking space per apartment and duplex units than what is required under the current Fingal Development Plan. Car parking provision is presented later in Section 13.

Proposed Development	AM Peak Hour		PM Peak Hour	
	Car Trips IN	Car Trips OUT	Car Trips IN	Car Trips OUT
Phases 1 + 2 + 3 (621 no. units)	80	169	155	98

Table 18 | *Car Trip Generation (-reduced from 62% to 56%%) Phases 1, 2 and 3 of Proposed Development - 2027.*

It can be seen from the above that the cumulative development of Phase 1 + Phase 2 + Phase 3, with the 6% reduction applied, is expected to generate a total of 249 car trips during the AM peak hour (80 inbound and 169 outbound) and a total of 253 car trips during the PM peak hour (155 inbound and 98 outbound).

The calculated multi-modal trips for the proposed Phase 3 are presented in Table 17 below. These have been based on slightly lower reduction than that set out on:

- Car trip generation in Table 16 (equivalent to 52% as per 2027 GDA Strategy + MetroLink Modal Split – Table 10).
- The 2027 GDA Strategy + MetroLink Modal Split in Table 10.

Mode	Modal Split (GDA Strategy + MetroLink 2027)	AM Peak Hour		PM Peak Hour	
		Total Trips IN	Total Trips OUT	Total Trips IN	Total Trips OUT
Car	56%	80	169	155	98
Public Transport	28%	43	91	83	53
Walk	14%	22	46	42	26
Cycle	2%	3	7	6	4
Total	**100%**	**148**	**313**	**286**	**180**

Table 19 | *Multi-modal Trip Generation – Phases 1+2+3 of Proposed Development – 2027.*

From Table 17 above, it can be seen that, in 2027, the cumulative development of Phase 1 + Phase 2 + Phase 3 is expected to generate a total of 461 multi-modal trips in the AM peak hour (148 inbound and 313 outbound) and a total of 466 multi-modal trips in the PM peak hour (286 inbound and 180 outbound).

8.3.4 Summary of Peak Hour Car Trip Generation

Table 18 below shows a summary of the car trips expected to be generated during each phase of the proposed development.

Proposed Development	Year	AM Peak Hour		PM Peak Hour	
		Car Trips IN	Car Trips OUT	Car Trips IN	Car Trips OUT
Phase 1 (196 no. units)	**2023**	28	59	54	35
Phases 1 + 2 (272 no. units)	**2025**	39	82	75	48
Phases 1 + 2 + 3 (621 no. units)	**2027**	80	169	155	98

Table 20 | *Summary of Peak Hour Car Trip Generation.*

9. Car Trip Distribution

In order to determine the amount of new car trips expected to travel through each assessed junction in the local road network, the calculated car trips for the proposed development in 2023 (Phase 1), 2025 (Phase 1 + Phase 2) and 2027 (Phase 1 + Phase 2 + Phase 3), presented in Table 18, have been distributed.

For the purpose of this TTA, it was assumed that all traffic to/from the proposed development will access the site from Glen Ellan Road via the priority-controlled T-junction proposed as part of the subject development works.

Based on the location of the subject site, it was considered that 75% of the overall trips generated by the proposed development will travel eastwards along Glen Ellan Road and turn right onto Balheary Road, whilst the remaining 25% will make their way to west along Glen Ellan Road and turn left on Glen Ellan Road / Ashton Distributor Road roundabout towards R125 Rathbeale Road. Trip distribution percentages for the remaining Junction 4 (Balheary Road / R125 / Castlegrange Green – Signalised crossroads) and Junction 5 (R132 Dublin Road / R125 – Four-armed roundabout) were calculated using the base surveyed flows and associated turning movements.

The distribution percentage of the car trips for the AM & PM peak hours is detailed in Figure A as included in Appendix E. The corresponding AM & PM peak hour traffic flows, based on the assumed distribution, are presented in Figure B for 2023 – Opening of Phase 1, Figure C for 2025 – Opening of Phase 2 and Figure D for 2027 – Opening of Phase 3 – Appendix E.

10. Traffic Growth

As presented previously, the following opening years have been assumed for each phase of the proposed development:
Phase 1: Opening Year 2023 **Phase 2**: Opening Year 2025 **Phase 3**: Opening Year 2027

As per methodology adopted in the NRA Transport Assessment Guidelines (2014), which this TTA is based on, the assessed junctions were also modelled for the future design years of 2032 (Opening Year of Phase 3 +5 years) and 2042 (Opening Year of Phase 3 +15 years).

The background traffic growth rates used to factor up the 2019 base year traffic movements illustrated in Figures 4 to 8, are in accordance with the '*Table 6.2: Link-Based Growth Rates: County Annual Growth Rates (excluding Metropolitan Area)'* within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2019). These are:

- 1.066 (Central growth) growth factor to 2023.
- 1.101 (Central growth) growth factor to 2025.
- 1.123 (Low Sensitivity growth) growth factor to 2027.
- 1.181 (Low Sensitivity growth) growth factor to 2032.
- 1.220 (Low Sensitivity growth) growth factor to 2042.

As presented earlier in Section 8.2 of this report, the proposed development site falls within the Swords East sector as defined in the Swords Sub Area Report – South Fingal Transport Study (2019). The chart below – extracted from '*Figure 4.5 Trip Generation by Mode, Swords East'* of the Swords Sub Area Report, indicates that for the future design year of 2027, with all the recognised development in the Swords East sector and the GDA Strategy + MetroLink implemented, there will be a lower increase in the absolute number of generated car trips when compared to DoMin 2027 (without GDA Strategy and MetroLink). Therefore, for the purpose of this TTA, it was considered reasonable to apply low sensitivity growth factors to derive the 2027, 2032 and 2042 baseline traffic flows to reflect the implementation of the GDA Strategy and the MetroLink, and its associated lower increase in car-based trips.

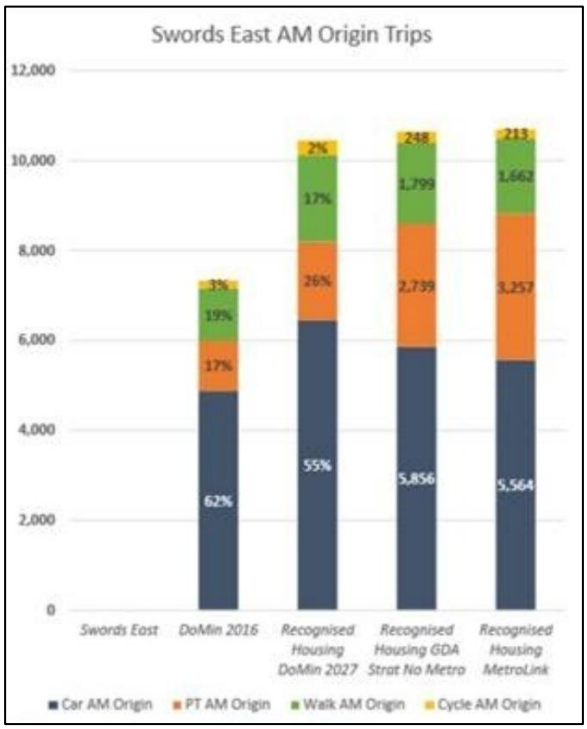


Figure 29 | *Swords East sector and Modal Split Forecast.*

11. Junction Assessment

11.1 Junctions Assessed

The junctions that have been assessed within this TTA are the following:

- **Junction 1 (Roundabout)**: Ashton Distributor Road / Glen Ellan Road.
- **Junction 2 (Roundabout)**: Applewood Main Street / Glen Ellan Road.
- **Junction 3 (Signalised)**: Balheary Road / Glen Ellan Road / Access Road to Swords Business Campus.
- **Junction 4 (Signalised)**: Balheary Road / R125 / Castlegrange Green.
- **Junction 5 (Roundabout)**: R132 Dublin Road / R125.

11.2 Methodology

11.2.1 Cumulative Impact

The extent of traffic from the proposed development has been determined by initially checking where generated traffic would exceed 10% of the traffic flow on the adjoining road of 5% on the road where congestion exists, or the location is sensitive. This is in line with the NRA Transport Assessment Guidelines (2014). A summary of the existing two-way traffic flows and the expected traffic increase at each assessed junction is presented below.

Junction	Junction Existing Flow - AM Peak Hour	Junction Existing Flow - PM Peak Hour	Additional Traffic Two-way Flow (AM)	Additional Traffic Two-way Flow (PM)	% Expected Increase (AM)	% Expected Increase (PM)
Junction 1	1,811	1,539	62	63	3.42%	4.09%
Junction 2	1,373	1,355	62	63	4.52%	4.65%
Junction 3	1,484	1,384	187	190	12.60%	13.72%
Junction 4	1,908	1,872	187	190	9.80%	10.15%
Junction 5	3,836	3,865	149	150	3.88%	3.88%

Table 21 | *Existing and Additional Two-way Flows.*

As can be seen from above, Junctions 1, 2 and 5 do not exceed a 5% increase in traffic and therefore no further assessment is warranted. However, as Junction 5 is known to currently operate at/without capacity in the peak hours, and improvement works are proposed on this junction, it has been modelled. Junctions 3 and 4 are expected to receive a two-way traffic increase higher than 10% and therefore have also been modelled.

11.2.2 Modelling Background

There are various modelling software packages available to assess every type of junction. Waterman Moylan uses ARCADY and TRANSYT to analyse roundabouts and signalised junctions, respectively.

ARCADY is a software for modelling roundabouts. This programme utilises roundabouts geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the roundabout.

TRANSYT (Traffic Network Study Tool) software is a widely accepted software for modelling signalised controlled junctions. This programme utilises the phases input by the user and optimises their timings over a selected cycle time. The outputs of a TRANSYT assessment include a Degree of Saturation percentage (DOS%) figure and queue length for each link on the junction.

Typically, a junction is said to be working satisfactorily when the DOS% or RFC of each link does not exceed 85%/0.85. Acceptable DOS% or RFC values are considered to be in the range of 90%/0.9 to 100%/1.0 with higher values indicating restrained movements.

11.3 Assessment Scenarios

The performance of the junctions has been analysed for the critical AM and PM Peak Hours (08:00 – 09:00 and 17:00 – 18:00) for the following scenarios:

- **BASE YEAR 2019**: with 2019 surveyed flows (Figures 4 to 8).
- **DO NOTHING 2023 (DN-23)**: with 2019 baseline traffic flows factored up (Figure E – Appendix E).
- **DO NOTHING 2025 (DN-25)**: with 2019 baseline traffic flows factored up (Figure F – Appendix E).
- **DO NOTHING 2027 (DN-27)**: with 2019 baseline traffic flows factored up (Figure G – Appendix E).
- **DO NOTHING 2032 (DN-32)**: with 2019 baseline traffic flows factored up (Figure H – Appendix E).
- **DO NOTHING 2042 (DN-42)**: with 2019 baseline traffic flows factored up (Figure I – Appendix E).
- **DO SOMETHING 2023 (DS-23)**: **DN-23** + traffic to/from Phase 1 of proposed development (Figure J – Appendix E).
- **DO SOMETHING 2025 (DS-25)**: **DN-25** + traffic to/from Phases 1 and 2 of the proposed development (Figure K – Appendix E).
- **DO SOMETHING 2027 (DS-27)**: **DN-27** + traffic to/from Phases 1, 2 and 3 of the proposed development (Figure L – Appendix E)
- **DO SOMETHING 2032 (DS-32)**: **DN-32** + traffic to/from Phases 1, 2 and 3 of the proposed development (Figure M – Appendix E).
- **DO SOMETHING 2042 (DS-42)**: **DN-42** + traffic to/from Phases 1, 2 and 3 of the proposed development (Figure N – Appendix E).

11.4 Junctions Assessment Results

11.4.1 Junction 3 – Balheary Road / Glen Ellan Road / Swords Business Campus

Junction 3 is an existing signalised crossroads located to the east of the proposed development site and its current layout is presented in Figure 28 below.

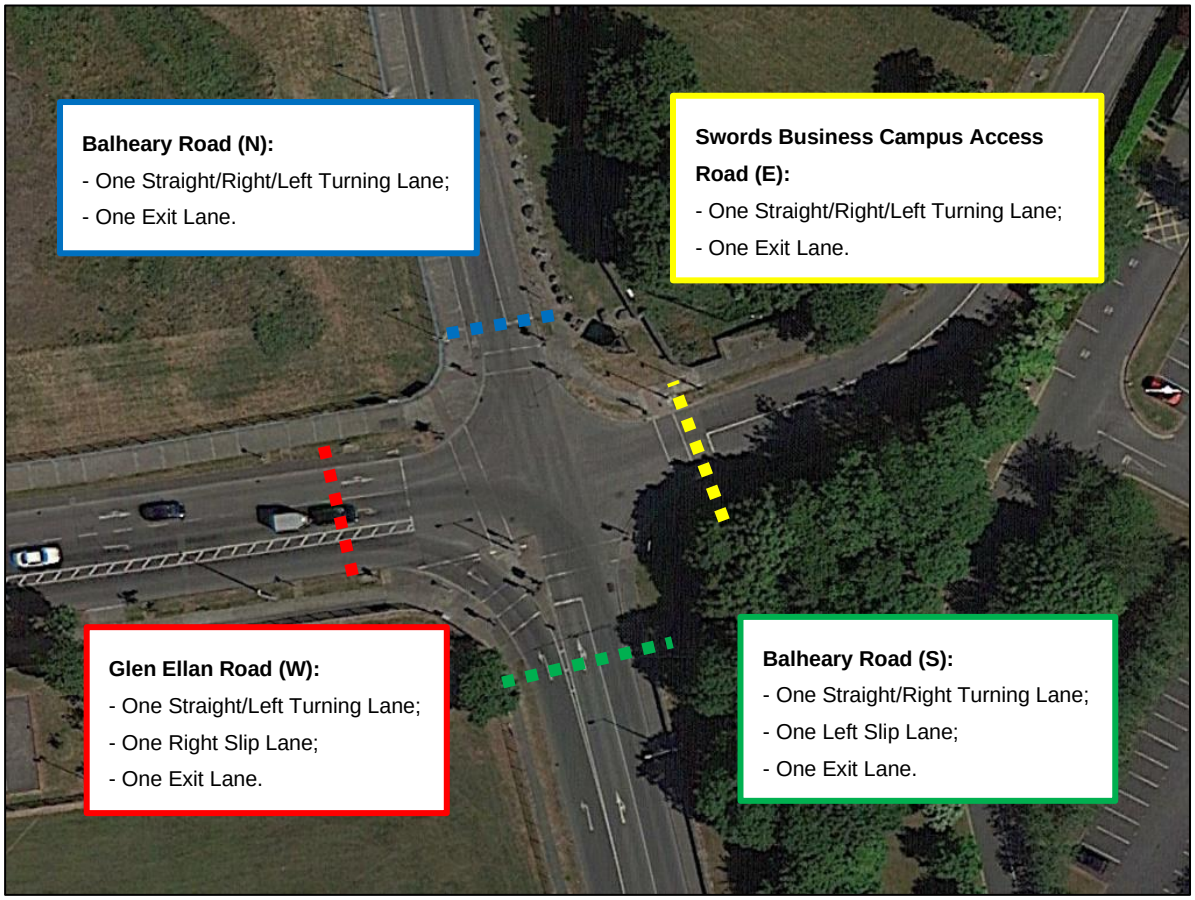


Figure 30 | *Junction 3 – Current Layout.*

Pedestrian crossings incorporated to the traffic signals are provided on all approaches of this junction.

In order to simulate the capacity of the existing junction to accommodate the demand traffic arising from the proposed development, it has been initially modelled on the basis of its current layout. The TRANSYT analysis were undertaken applying a 5-phase signal cycle (4 traffic phases and 1 pedestrian phase) with the cycle time set at 120 seconds and intergreen periods set at 5 seconds. The full TRANSYT output report, including details of phase timings and stages is provided in Appendix F. A summary of the analysis is presented in Table 23. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: Swords Business Campus access road (E);
- Arm B: Balheary Road (S);
- Arm C: Glen Ellan Road (W);
- Arm D: Balheary Road (N).

As per the analysis results below, for the 2023 DO NOTHING scenario, with the baseline flows factored up and without the inclusion of any trips generated by the proposed development, Junction 3 will operate within capacity in the PM peak hour with the highest DOS at 80% and a corresponding queue of 15.34 vehicles recorded on Glen Ellan Road (W), and at capacity in the AM peak hour with the highest DOS at 98% and a corresponding queue of 20.13 vehicles recorded on Balheary Road (N).

With the inclusion of the trips generated by the Phase 1 of the proposed development, for the 2023 DO SOMETHING scenario, Junction 3 will continue operate within capacity in the PM peak hour with the highest DOS at 85% and a corresponding queue of 17.23 vehicles recorded on Glen Ellan Road (W), and at capacity during the AM peak hour with the highest DOS at 98% and a corresponding queue of 20.13

vehicles recorded on Balheary Road (N). Glen Ellan Road (W) is also recorded to operate at capacity during the AM peak hour with a DOS value of 96% and a corresponding queue of 33.32 vehicles.

Arm	Mov.	AM		PM	
		Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2023 DO NOTHING					
A	S/L/R	0.13	4	0.13	4
B	L	6.71	38	13.58	62
	S/R	1.90	54	3.49	26
C	S/L	0.56	4	1.52	11
	R	27.14	91	15.34	80
D	S/L/R	20.13	98	4.22	58
2023 DO SOMETHING					
A	S/L/R	0.13	4	0.13	4
B	L	7.22	40	14.89	66
	S/R	1.90	54	3.49	26
C	S/L	0.56	4	1.52	11
	R	33.32	96	17.23	85
D	S/L/R	20.13	98	4.22	58
2025 DO NOTHING					
A	S/L/R	0.13	4	0.13	4
B	L	6.94	39	14.28	64
	S/R	1.96	56	3.64	26
C	S/L	0.58	4	1.57	12
	R	30.17	94	16.39	83
D	S/L/R	23.68	101	4.35	60
2025 DO SOMETHING					
A	S/L/R	0.13	4	0.13	4
B	L	7.73	42	16.42	69
	S/R	1.96	56	3.64	26
C	S/L	0.58	4	1.57	12
	R	43.98	101	19.23	89
D	S/L/R	23.68	101	4.35	60

***Table 22** | Junction 3 – Current Layout – TRANSYT Analysis Results.*

For the future assessment scenario of 2025 DO NOTHING, with the baseline flows factored up and without the inclusion of any trips generated by the proposed development, the analysis results indicate that Junction 3 will operate within capacity in the PM peak hour with the highest DOS at 83% and a corresponding queue of 16.39 vehicles recorded on Glen Ellan Road (W), and above capacity in the AM peak hour with the highest DOS at 101% and a corresponding queue of 23.68 vehicles recorded on Balheary Road (N). Glen Ellan Road (W) is recorded to operate at capacity during the AM peak hour with a DOS value of 94% and a corresponding queue of 30.17 vehicles.

With the inclusion of the trips generated by Phases 1 and 2 of the proposed development, for the 2025 DO SOMETHING scenario, Junction 3 will continue to operate within capacity during the PM peak hour with the highest DOS at 89% and a corresponding queue of 19.23 vehicles recorded on Glen Ellan Road (W), however in the AM peak hour the DOS value is recorded above capacity – at 101% on Glen Ellan Road (W) and Balheary Road (N).

It is acknowledged that, as part of the Phase 3 of the Oldtown – Mooretown Local Area Plan a major improvement is planned for this junction in order to provide additional capacity to accommodate the future traffic demand produced by the Oldtown – Mooretown lands. This layout, which was presented previously in Figure 16, will require a significant area of the green site to the west of the Balheary Road (S).

With the objective of increasing the operational capacity of the existing junction to accommodate the proposed development trips prior to the major improvements planned under the Oldtown – Mooretown LAP, as part of the subject development works, a minor alteration on the subject junction's layout is proposed. As presented earlier in Section 4.8.1, this improved layout will consist of: (1) traffic traveling from Glen Ellan Road (W) will have a right turn lane and a lane allowing forward, left and right turn movements, and (2) the Balheary Road (S) will have two exit lanes. These proposed improvements will only require a small portion of the green site to the west of the Balheary Road (S). Details of the proposed layout are set out on our enclosed Waterman Moylan Drg. No. 17-088-P014.

For this proposed layout, the TRANSYT analysis were undertaken also applying a 5-phase signal cycle (4 traffic phases and 1 pedestrian phase) with the cycle time also set at 120 seconds and intergreen periods set at 5 seconds. The full TRANSYT output report is provided in Appendix F and summarised in Table 21 below. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: Swords Business Campus access road (E);
- Arm B: Balheary Road (S);
- Arm C: Glen Ellan Road (W);
- Arm D: Balheary Road (N).

Arm	Mov.	AM		PM	
		Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2023 DO NOTHING					
A	S/L/R	0.13	4	0.13	4
B	L	7.70	43	13.58	62
	S/R	1.73	46	3.49	26
C	S/L/R	10.96	57	8.14	51
	R	9.88	53	6.02	40
D	S/L/R	11.56	68	4.22	58
2023 DO SOMETHING					
A	S/L/R	0.13	4	0.13	4
B	L	8.29	46	14.89	66
	S/R	1.73	46	3.49	26
C	S/L/R	11.73	61	8.61	54
	R	10.62	56	6.45	42
D	S/L/R	11.56	68	4.22	58
2025 DO NOTHING					
A	S/L/R	0.13	4	0.13	4
B	L	7.98	44	14.28	64
	S/R	1.82	48	3.64	26
C	S/L/R	11.46	59	8.52	53
	R	10.22	55	6.31	41
D	S/L/R	12.11	70	4.35	60
2025 DO SOMETHING					
A	S/L/R	0.13	4	0.13	4
B	L	8.87	48	16.42	69

	S/R	1.82	48	3.64	26
C	S/L/R	12.65	64	9.16	56
	R	11.46	59	6.88	45
D	S/L/R	12.11	70	4.35	60
2027 DO NOTHING					
A	S/L/R	0.13	4	0.13	4
B	L	8.38	46	14.80	66
	S/R	1.87	49	3.71	27
C	S/L/R	12.03	61	8.70	54
	R	10.73	57	6.45	42
D	S/L/R	12.81	73	4.52	61
2027 DO SOMETHING					
A	S/L/R	0.13	4	0.13	4
B	L	10.19	54	19.74	76
	S/R	1.87	49	3.71	27
C	S/L/R	14.67	71	10.11	60
	R	13.32	66	7.62	49
D	S/L/R	12.81	73	4.52	61
2032 DO NOTHING					
A	S/L/R	0.16	5	0.16	6
B	L	9.03	49	16.29	69
	S/R	2.00	51	3.90	28
C	S/L/R	12.87	65	9.28	57
	R	11.58	60	6.85	44
D	S/L/R	13.92	76	4.84	64
2032 DO SOMETHING					
A	S/L/R	0.16	5	0.16	6
B	L	10.95	56	21.38	80
	S/R	2.00	51	3.90	28
C	S/L/R	15.79	74	10.77	63
	R	14.29	69	8.08	51
D	S/L/R	13.92	76	4.84	64
2042 DO NOTHING					
A	S/L/R	0.16	5	0.16	6
B	L	9.36	50	17.16	71
	S/R	2.10	53	4.07	29
C	S/L/R	13.49	67	9.69	59
	R	12.12	62	7.08	46
D	S/L/R	14.69	79	5.03	66
2042 DO SOMETHING					
A	S/L/R	0.16	5	0.16	6
B	L	11.42	58	22.47	82
	S/R	2.10	53	4.07	29
C	S/L/R	16.51	76	11.21	65
	R	14.92	71	8.40	52
D	S/L/R	14.69	79	5.03	66

Table 23 | *Junction 3 – Proposed Layout – TRANSYT Analysis Results.*

As can be seen from the above, for the assessment years of 2023 DO SOMETHING (Opening year of Phase 1), 2025 DO SOMETHING (Opening year of Phase 2) and 2027 DO SOMETHING (Opening year of Phase 3), the subject junction with the proposed upgrade layout will have capacity to accommodate the demand traffic arising from each phase of the proposed development.

For the future assessment year of 2042 DO SOMETHING (worst-case scenario), the analysis results indicate that, Junction 3 with its proposed layout will continue to operate within capacity during both peak hours with the highest DOS at 79% and a corresponding queue of 14.69 vehicles recorded on Balheary Road (N) in the AM, and with the highest DOS at 82% and corresponding queue of 22.47 vehicles recorded on Balheary Road (S) in the PM.

It is expected that by the future assessment year of 2042, the major improvements proposed under Oldtown – Mooretown LAP for Junction 3 will be in place. At that stage, the operational capacity of Junction 3 is likely to be significantly higher.

11.4.2 Junction 4 – Balheary Road / R125 / Castlegrange Green

Junction 4 is an existing four-armed signalised junction located southeast of the proposed development site. Its current layout is presented in Figure 29 below.

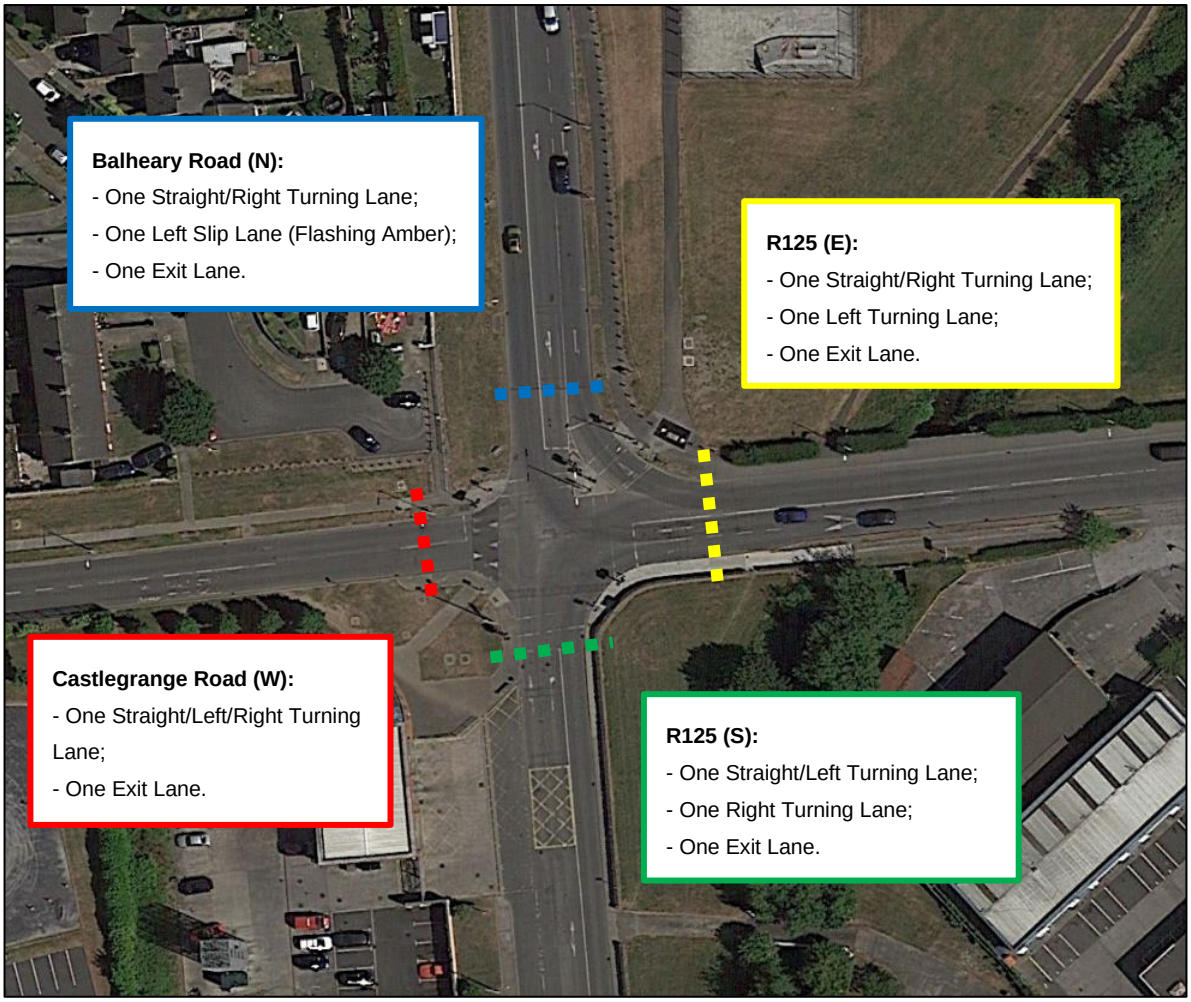


Figure 31 | *Junction 4 – Current Layout.*

Pedestrian crossings incorporated to the traffic signals are provided on all approaches of this junction.

In order to simulate the capacity of the existing junction to accommodate the future traffic demand arising from the proposed development, it has been modelled on the basis of its current layout. The TRANSYT analysis was undertaken applying a 5-phase signal cycle (4 traffic phases and 1 pedestrian phase) with the cycle time set at 130 seconds and intergreen periods set at 5 seconds. The full TRANSYT output report is provided in Appendix F. A summary of the analysis is presented below. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: R125 (E).
- Arm B: R125 (S).
- Arm C: Castlegrange Green (W).
- Arm D: Balheary Road (N) – Straight/Right Turning Lane.
- Arm D-1: Balheary Road (N) – Left Turning Slip Lane (Flashing Amber).

Arm	Mov.	AM		PM	
		Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2023 DO NOTHING					
A	S/L	3.36	20	2.73	16
	R	16.40	71	18.57	74
B	S/L	3.20	27	7.92	61
	R	10.01	71	8.47	64
C	S/L/R	1.78	58	1.66	55
D	S/R	7.18	71	5.08	67
D-1	L	0.16	43	0.10	36
2023 DO SOMETHING					
A	S/L	3.40	20	2.70	16
	R	17.45	75	19.81	76
B	S/L	3.32	28	8.39	64
	R	10.01	71	8.47	64
C	S/L/R	1.78	58	2.00	69
D	S/R	7.47	70	5.33	69
D-1	L	0.18	45	0.11	37

Table 24 | *Junction 4 – Current Layout – 2023 - TRANSYT Analysis Results.*

The analysis results in Table 22 indicate that, for the 2023 DO NOTHING scenario, with the baseline flows factored up, Junction 4 will operate within capacity during both peak hours with the highest DOS at 71% and a corresponding and a corresponding queue of 16.40 vehicles recorded on R125 (E) in the AM and with the highest DOS at 74% and a corresponding queue of 18.57 vehicles also recorded on R125 (E) in the PM.

For the future assessment year of 2023 DO SOMETHING (Opening Year of Phase 1), with the baseline flows factored up and the inclusion of the trips generated by the Phase 1 of the proposed development, the results indicate that Junction 4 will continue to operate within capacity during both peak hours with the highest DOS at 75% and a corresponding queue 17.45 vehicles recorded on R125 (E) in the AM and with the highest DOS at 76% and a corresponding queue of 19.81 vehicles also recorded on R125 (E) in the PM.

With the baseline flows factored up to 2025, the analysis results in Table 23 below indicate that, for the future assessment year of 2025 DO NOTHING, Junction 4 will operate within capacity during both peak hours with the highest DOS at 74% and a corresponding queue of 17.20 vehicles recorded on R125 (E) in the AM and with the highest DOS at 76% and a corresponding queue of 19.48 vehicles also recorded on R125 (E) in the PM.

With the inclusion of the trips generated by Phase 1 and Phase 2 of the proposed development, the results in Table 23 below indicate that, for the future assessment year of 2025 DO SOMETHING (Opening Year of Phase 2), Junction 4 will continue to operate within capacity during both peak hours with the highest DOS at 77% and a corresponding queue o of 18.45 vehicles recorded on R125 (E) in the AM, and with the highest DOS at 80% and a corresponding queue of 21.64 vehicles also recorded on R125 (E) in the PM.

Arm	Mov.	AM		PM	
		Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2025 DO NOTHING					
A	S/L	3.46	20	2.82	16
	R	17.20	74	19.48	76
B	S/L	3.36	28	8.23	63
	R	10.52	73	8.88	67
C	S/L/R	1.92	61	1.85	59
D	S/R	7.55	73	5.33	69
D-1	L	0.18	44	0.11	37
2025 DO SOMETHING					
A	S/L	3.46	20	2.78	16
	R	18.45	77	21.64	80
B	S/L	3.58	31	8.88	67
	R	10.78	76	8.88	67
C	S/L/R	1.92	61	2.32	74
D	S/R	8.07	74	5.69	72
D-1	L	0.21	47	0.12	39

Table 25 | *Junction 4 – Current Layout – 2025 - TRANSYT Analysis Results.*

Arm	Mov.	AM		PM	
		Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2027 DO NOTHING					
A	S/L	3.59	21	2.88	17
	R	17.75	75	20.13	77
B	S/L	3.42	29	8.43	64
	R	10.82	75	9.10	68
C	S/L/R	2.00	62	1.85	59
D	S/R	7.78	75	5.51	70
D-1	L	0.19	45	0.11	38
2027 DO SOMETHING					
A	S/L	3.59	21	2.81	16
	R	20.53	82	25.01	85
B	S/L	3.87	33	10.23	75
	R	11.11	78	9.36	71
C	S/L/R	2.00	62	2.32	74
D	S/R	9.13	80	6.18	75
D-1	L	0.26	51	0.14	41

Table 26 | *Junction 4 – Current Layout – 2027 - TRANSYT Analysis Results.*

The analysis results in Table 24 indicate that, for the 2027 DO NOTHING scenario, with the baseline flows factored up, Junction 4 will operate within capacity during both peak hours with the highest DOS at 75% and a corresponding and a corresponding queue of 17.75 vehicles recorded on R125 (E) in the AM and with the highest DOS at 77% and a corresponding queue of 20.13 vehicles also recorded on R125 (E) in the PM.

For the future assessment year of 2027 DO SOMETHING (Opening Year of Phase 3), with the baseline flows factored up and the inclusion of the trips generated by the overall proposed development (Phases 1 to 3), the results indicate that Junction 4 will continue to operate within capacity during both peak hours with the highest DOS at 82% and a corresponding queue 20.53 vehicles recorded on R125 (E) in the AM and with the highest DOS at 85% and a corresponding queue of 25.01 vehicles also recorded on R125 (E) in the PM.

Arm	Mov.	AM		PM	
		Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2032 DO NOTHING					
A	S/L	3.81	22	3.07	18
	R	19.74	80	22.26	81
B	S/L	3.61	30	9.01	67
	R	11.71	79	9.77	71
C	S/L/R	2.15	65	2.00	62
D	S/R	8.18	75	5.94	74
D-1	L	0.21	47	0.13	40
2032 DO SOMETHING					
A	S/L	3.76	22	2.95	17
	R	22.58	86	27.65	89
B	S/L	4.03	35	10.98	78
	R	12.11	82	10.07	74
C	S/L/R	2.15	65	2.58	78
D	S/R	10.05	84	6.77	79
D-1	L	0.30	53	0.16	43

Table 27 | *Junction 4 – Current Layout – 2032 - TRANSYT Analysis Results.*

The analysis results in Table 25 indicate that, for the 2032 DO NOTHING scenario, with the baseline flows factored up, Junction 4 will operate within capacity during both peak hours with the highest DOS at 80% and a corresponding and a corresponding queue of 19.74 vehicles recorded on R125 (E) in the AM and with the highest DOS at 81% and a corresponding queue of 22.26 vehicles also recorded on R125 (E) in the PM.

For the future assessment year of 2032 DO SOMETHING (Opening Year of Phase 3 + 5 Years), with the baseline flows factored up and the inclusion of the trips generated by the overall proposed development (Phases 1 to 3), the results indicate that Junction 4 will continue to operate within capacity during both peak hours with the highest DOS at 86% and a corresponding queue 22.58 vehicles recorded on R125 (E) in the AM and with the highest DOS at 89% and a corresponding queue of 27.65 vehicles also recorded on R125 (E) in the PM.

Arm	Mov.	AM		PM	
		Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2042 DO NOTHING					
A	S/L	3.95	23	3.14	18
	R	21.03	83	23.13	83
B	S/L	3.69	30	9.49	70
	R	12.04	78	10.28	74
C	S/L/R	2.23	66	2.58	78
D	S/R	9.04	81	6.25	76
D-1	L	0.24	49	0.14	41
2042 DO SOMETHING					
A	S/L	3.91	23	3.06	17
	R	24.18	88	29.01	90
B	S/L	4.20	36	12.04	84
	R	12.90	84	10.90	80
C	S/L/R	2.23	66	2.58	78
D	S/R	10.69	86	7.16	82
D-1	L	0.33	55	0.18	44

Table 28 | *Junction 4 – Current Layout – 2042 - TRANSYT Analysis Results.*

With the baseline flows factored up to 2042, the analysis results in Table 26 above indicate that, for the future assessment year of 2042 DO NOTHING, Junction 4 would operate within capacity during both peak hours with the highest DOS at 83% and a corresponding queue of 21.03 vehicles recorded on R125 (E) in the AM and with the highest DOS at 83% and a corresponding queue of 23.13 vehicles also recorded on R125 (E) in the PM.

With the inclusion of the trips generated by the overall proposed development (Phases 1 to 3), the results in Table 26 above indicate that, for the future assessment year of 2042 DO SOMETHING (Opening Year of Phase 3 + 15 Years), Junction 4 would continue to operate within capacity during both peak hours with the highest DOS at 88% and a corresponding queue o of 24.18 vehicles recorded on R125 (E) in the AM, and with the highest DOS at 90% and a corresponding queue of 29.01 vehicles also recorded on R125 (E) in the PM.

It is acknowledged that a junction with a DOS of 90% is likely to operate with some level of congestion and restrained movements, however, it is expected that by the future assessment year of 2042, the major improvements proposed under Oldtown – Mooretown LAP for Junction 4 will be in place. At that stage, the operational capacity of Junction 4 is likely to be significantly higher.

11.4.3 Junction 5 – R132 Dublin Road / R125

Junction 5 is an existing priority-controlled roundabout located southeast of the proposed development site. Its current layout is illustrated in Figure 30.

Figure 32 | *Junction 5 – Current Layout.*

An overpass link and an unsignalised pedestrian crossing are provided over the R132 (N) and on Estuary Road (E), respectively.

As presented in the analysis results in Figure 8 – Section 3.2.5, this roundabout is currently operating within capacity in the PM peak hour and over capacity during the AM peak hour. Fingal County Council also recognises that this roundabout is operating over capacity and there are plans to upgrade it to a signalised crossroads. As described earlier in Section 4.1 of this report, the works on this junction are currently identified to be carried out as part of the Phase 2 of Oldtown – Mooretown LAP or the MetroLink project, whichever occurs first. However, with the objective to increase the operational capacity of this existing roundabout in advance to the major works related to the above-mentioned plans, as part of the subject application, this roundabout is proposed to be partially signalised, and the modelling has been undertaken on this basis. In carrying out the modelling, it was assumed that the three busiest arms of the roundabout (R125 (W), R132 (S) and R132 (N)) were signalised and the Estuary Road (E) was kept as a priority-controlled arm. No additional lane was introduced into the model. Details of the proposed layout, which has been approved by Fingal County Council, are set out on our enclosed Waterman Moylan Drg. No. 17-088-P013.

The TRANSYT analysis was undertaken introducing three synchronised controller streams, with cycle and phase times optimised by the software. Figure 31 below – extracted from the TRANSYT model, illustrates the proposed/modelled configuration.

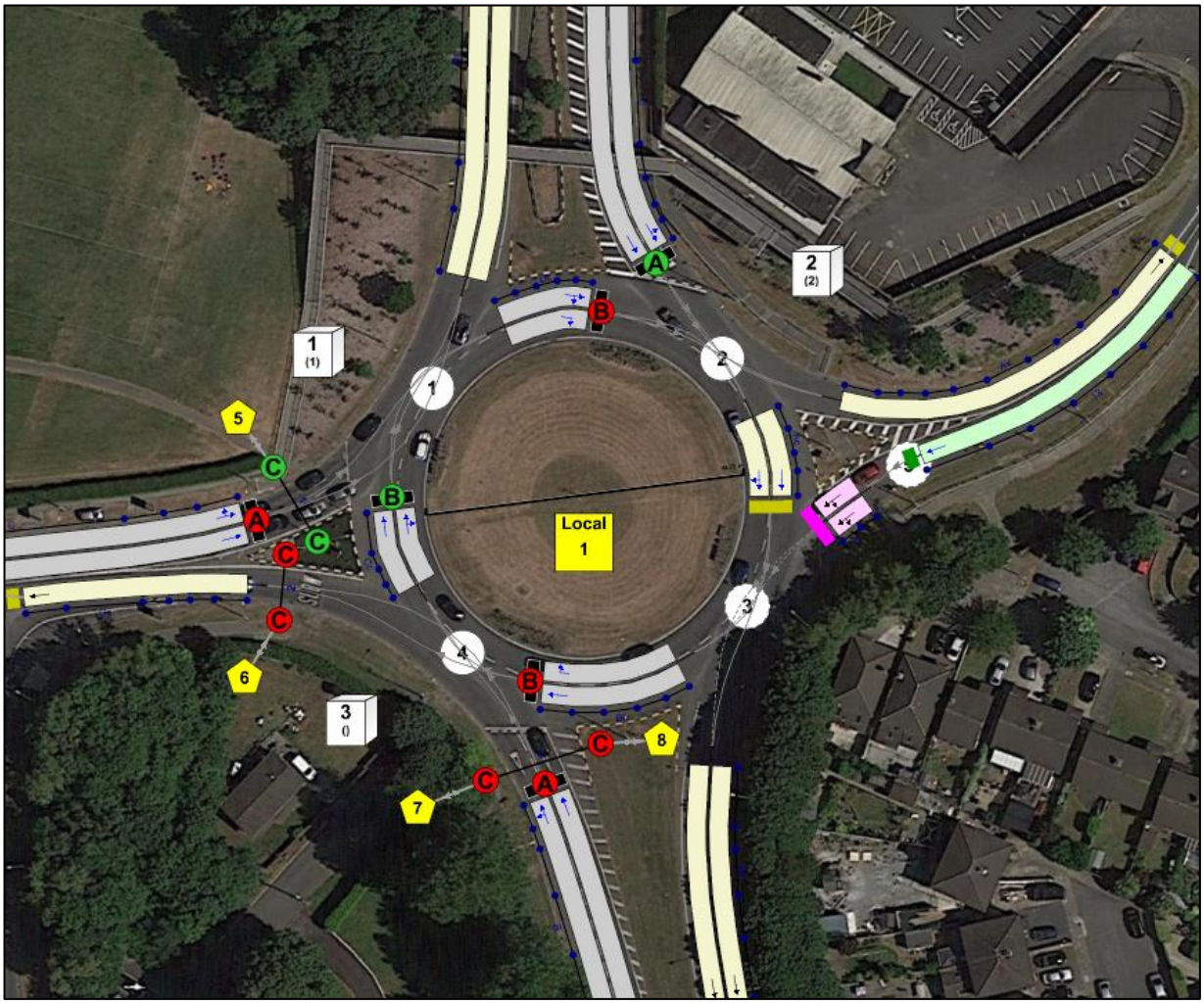


Figure 33 | *Junction 5 - Optimised Configuration – extracted from TRANSYT Model.*

The full TRANSYT output report, including details of cycle/phase timings, stages and intergreen values, is provided in Appendix F.

The analysis results for the proposed partially signalised roundabout are summarised in Table 27. The arms of the roundabout were labelled as follows within the TRANSYT model:

- Arm A: Estuary Road (E);
- Arm B: R132 (S);
- Arm Bc: Circulating Arm (S);
- Arm C: R125 (W);
- Arm Cc: Circulating Arm (W);
- Arm D: R132 (N);
- Arm Dc: Circulating Arm (N).

Arm	AM		PM	
	Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2023 DO NOTHING				
A	0.00	3	0.00	5
B	24.55	53	43.43	78
Bc	4.64	61	5.08	72
C	15.24	46	31.36	77
Cc	2.79	12	3.43	66
D	16.28	82	14.94	60
Dc	5.03	71	4.62	60
2023 DO SOMETHING				
A	0.00	3	0.00	5
B	25.38	54	44.67	79
Bc	4.62	60	5.08	72
C	19.85	55	31.70	76
Cc	3.03	50	3.47	67
D	16.33	82	14.96	61
Dc	5.16	73	4.66	61

Table 29 *| Junction 5 – Proposed Layout – 2023 - TRANSYT Analysis Results.*

The analysis results in Table 27 above indicate that, for the 2023 DO NOTHING scenario, with the baseline flows factored up, the subject junction with its proposed partially signalised configuration would operate within capacity during both peak hours with the highest DOS at 82% and a corresponding queue of 16.28 vehicles recorded on R132 (N) in the AM and with the highest DOS at 78% and a corresponding queue of 43.43 vehicles recorded on R132 (S) in the PM.

For the future assessment year of 2023 DO SOMETHING (Opening Year of Phase 1), with the inclusion of the trips generated by the Phase 1 of the proposed development, the results indicate that the subject junction with its proposed layout would continue to operate within capacity during both peak hours with the highest DOS at 82% and a corresponding queue 16.33 vehicles recorded on R132 (N) in the AM and with the highest DOS at 79% and a corresponding queue of 44.67 vehicles recorded on R132 (S) in the PM. Note that the impact of the Phase 1 of the proposed development is minimal on this junction when compared to the 2022 DO NOTHING scenario.

With the baseline flows factored up to 2025, the analysis results in Table 28 below indicate that Junction 5, with its proposed configuration would operate within capacity for the future scenario of 2025 DO NOTHING with the highest DOS at 84% and a corresponding queue of 16.71 vehicles recorded on R132 (N) in the AM and with the highest DOS at 82% and a corresponding queue of 46.89 vehicles recorded on R132 (S) in the PM.

With the inclusion of the trips generate by Phase 1 and Phase 2 of the proposed development, the results in Table 28 indicate that the subject junction with its proposed layout would continue to operate within capacity for the 2025 DO SOMETHING scenario (Opening Year of Phase 2) during both peak hours with the highest DOS at 87% and a corresponding queue of 17.20 vehicles recorded on R132 (N) in the AM and with the highest DOS at 83% and a corresponding queue of 48.37 vehicles recorded on R132 (S) in the PM. Note that, the impact of Phases 1 and 2 of the proposed development is also minimal on this junction when compared to the 2025 DO NOTHING scenario.

Arm	AM		PM	
	Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2025 DO NOTHING				
A	0.00	3	0.00	5
B	26.04	56	46.89	82
Bc	4.65	61	5.11	72
C	19.85	55	32.92	79
Cc	3.05	52	3.52	68
D	16.71	84	14.99	62
Dc	5.17	73	4.68	62
2025 DO SOMETHING				
A	0.00	3	0.00	5
B	26.62	56	48.37	83
Bc	4.68	62	5.16	73
C	21.09	58	33.85	80
Cc	3.05	52	3.57	69
D	17.20	87	15.03	63
Dc	5.17	73	4.73	64

Table 30 | *Junction 5 – Proposed Layout – 2025 - TRANSYT Analysis Results.*

Arm	AM		PM	
	Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2027 DO NOTHING				
A	0.00	3	0.00	5
B	26.89	57	48.42	83
Bc	4.68	62	5.21	74
C	20.90	58	33.48	79
Cc	3.05	51	3.64	71
D	17.06	86	15.03	63
Dc	5.28	75	4.72	63
2027 DO SOMETHING				
A	0.00	3	0.00	5
B	27.77	58	51.03	86
Bc	4.76	65	5.46	77
C	22.83	61	35.99	82
Cc	3.10	54	3.70	72
D	17.89	89	15.11	65
Dc	5.53	78	4.84	67

Table 31 | *Junction 5 – Proposed Layout – 2027 - TRANSYT Analysis Results.*

For the future assessment year of 2027 DO NOTHING, with the baseline flows factored up, the analysis results in Table 29 above indicate that the subject junction with its proposed partially signalised configuration would operate within capacity during both peak hours with the highest DOS at 86% and a corresponding queue of 17.06 vehicles recorded on R132 (N) in the AM and with the highest DOS at 83% and a corresponding queue of 48.42 vehicles recorded on R132 (S) in the PM.

With the inclusion of the trips generated by the overall proposed development (Phases 1 to 3), the results indicate that, for the 2027 DO SOMETHING scenario (Opening Year of Phase 3), the subject junction would continue to operate within capacity during both peak hours with the highest DOS at 89% and a corresponding queue of 17.89 vehicles recorded on R132 (N) in the AM and with the highest DOS at 86% and a corresponding queue of 51.03 vehicles recorded on R132 (S) in the PM. Note that, the impact of the overall proposed development is also minimal on this junction when compared to the 2027 DO NOTHING.

Arm	AM		PM	
	Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2032 DO NOTHING				
A	0.00	3	0.00	5
B	29.01	60	53.50	87
Bc	4.79	65	5.51	77
C	22.70	61	36.28	83
Cc	3.09	54	3.87	74
D	18.53	90	15.15	66
Dc	5.62	78	4.83	67
2032 DO SOMETHING				
A	0.00	3	0.00	6
B	30.64	62	57.12	90
Bc	4.82	66	5.87	81
C	24.67	63	38.33	84
Cc	3.15	57	4.06	77
D	20.46	93	15.36	71
Dc	5.96	81	4.79	65

***Table 32** | Junction 5 – Proposed Layout – 2032 - TRANSYT Analysis Results.*

For the future assessment year of 2032 DO NOTHING, with the baseline flows factored up, the analysis results in Table 30 above indicate that the subject junction with its proposed partially signalised configuration would operate within capacity during both peak hours with the highest DOS at 90% and a corresponding queue of 18.53 vehicles recorded on R132 (N) in the AM and with the highest DOS at 87% and a corresponding queue of 53.50 vehicles recorded on R132 (S) in the PM.

With the inclusion of the trips generated by the overall proposed development (Phases 1 to 3), the results indicate that, for the 2032 DO SOMETHING scenario (Opening Year of Phase 3 + 5 Years), the subject junction would continue to operate within capacity during both peak hours with the highest DOS at 93% and a corresponding queue of 20.46 vehicles recorded on R132 (N) in the AM and with the highest DOS at 90% and a corresponding queue of 57.12 vehicles recorded on R132 (S) in the PM. Note that, the impact of the overall proposed development is minimal on this junction when compared to the 2032 DO NOTHING.

With the baseline flows factored up to 2042, the analysis results in Table 31 below indicate that, for the assessment scenario of 2042 DO NOTHING, Junction 5 with its proposed partially signalised configuration will operate within capacity during both peak hours with the highest DOS at 93% and a corresponding queue of 20.47 vehicles recorded on R132 (N) in the AM and with the highest DOS at 90% and a corresponding queue of 58.11 vehicles recorded on R132 (S) in the PM.

With the inclusion of the trips generated by the overall proposed development (Phases 1 to 3), the results indicate that, for the 2042 DO SOMETHING scenario (Opening Year of Phase 3 + 15 Years), the subject junction will continue to operate within capacity with the highest DOS at 96% and a corresponding queue of 24.53 vehicles recorded on R132 (N) in the AM and with the highest DOS at 93% and a corresponding

queue of 62.10 vehicles recorded on R132 (S) in the PM. Note that, the impact of the overall proposed development is minimal on this junction when compared to the 2042 DO NOTHING.

It is acknowledged that a junction with a DOS higher than 90% is likely to operate with some level of congestion and restrained movements, however, it is expected that by the future assessment year of 2042, the major improvements proposed under Oldtown – Mooretown LAP for Junction 5 will be in place. At that stage, the operational capacity of Junction 5 is likely to be significantly higher.

Arm	AM		PM	
	Queue (Veh)	DOS (%)	Queue (Veh)	DOS (%)
2042 DO NOTHING				
A	0.00	3	0.00	6
B	31.05	63	58.11	90
Bc	4.81	66	5.80	80
C	23.81	60	38.59	86
Cc	3.12	55	4.08	77
D	20.47	93	15.24	69
Dc	5.93	81	4.93	69
2042 DO SOMETHING				
A	0.00	3	0.00	6
B	31.65	63	62.10	93
Bc	4.80	66	6.26	83
C	26.27	67	40.75	87
Cc	3.16	57	4.33	79
D	24.53	96	15.42	72
Dc	6.39	84	4.98	70

Table 33 | *Junction 5 – Proposed Layout – 2042 - TRANSYT Analysis Results.*

11.4.4 Summary

Detailed junction modelling has been undertaken as part of this Traffic and Transport Assessment for Junctions 3, 4 and 5. In summary it can be concluded as follows:

- Junction 3, with its current layout and central background traffic growth applied, would operate abovr capacity for the 2025 DO NOTHING even without the inclusion of trips from the proposed development.
- An improved layout is proposed for Junction 3 and consists of: (1) Glen Ellan Road (E) comprising one right turning lane and one lane allowing left, straight and right movements and (2) Balheary Road (S) comprising two exit lanes.
- Junction 3, with the proposed layout, central background traffic growth applied to derive the 2023 and 2025 future design years and low background traffic growth applied to derive the 2027, 2032 and 2042, will operate within capacity for all scenarios. It is expected that, by the future assessed years, the major improvements proposed under Oldtown – Mooretown LAP for Junction 3 will be in place and will significantly increase the operational capacity of Junction 3.
- Junction 4, with its current layout, central background traffic growth applied to derive the 2023 and 2025 future design years and low background traffic growth applied to derive the 2027, 2032 and 2042, would operate within capacity for all scenarios. It is expected that, by the future assessed year of 2042, the major improvements proposed under Oldtown – Mooretown LAP for Junction 4 will be in place and will significantly increase the operational capacity of Junction 4.

- Junction 5, with its current configuration of a priority-controlled roundabout is already operating over capacity during the AM peak hour.
- The three busiest arms of Junction 5 (R132 (S), R125 (W) and R132 (N)) are proposed to be signalised.
- Junction 5, with the proposed layout (partially signalised roundabout), central background traffic growth applied to derive the 2023 and 2025 future design years and low background traffic growth applied to derive the 2027, 2032 and 2042, would operate within capacity for all scenarios. It is expected that, by that stage, the major improvements proposed under Oldtown – Mooretown LAP for Junction 5 will be in place and will significantly increase the operation capacity of Junction 5.

12. Car Parking

12.1 Fingal Development Plan 2017 – 2023

12.1.1 Standard Parking

Standards for car parking in new developments are set out in Table 12.8 of the Fingal Development Plan 2017 - 2023. Based on that, Table 32 below sets out the car parking requirements applicable to the subject proposed development.

Land Use	Standard	Norm or Max
House – Urban / Suburban (1 or 2 bedrooms)	1-2 spaces within the curtilage	Norm
House – Urban / Suburban (3 or more bedrooms)	2 spaces within the curtilage	Norm
Apartment (1 bedroom)	1 space per unit plus 1 visitor space per 5 units	Norm
Apartment (2 bedrooms)	1.5 space per unit plus 1 visitor space per 5 units	Norm
Apartment (3 bedrooms)	2 spaces per unit plus 1 visitor space per 5 units	Norm
Crèche	0.5 space per classroom	Maximum

Table 34 | *Fingal Development Plan 2017 – 2023 - Car Parking Standards.*

12.1.2 Disabled Parking & Electric Vehicle Charging Points

Section 12.10 of the Fingal Development Plan 2017 – 2023 states the following with regards to parking for people with disabilities and electric vehicle charging points:

"One space or more per 100 spaces should be reserved for disabled parking bays."

"One space or more per 100 spaces should be reserved for electric vehicles with charging facilities."

12.2 Car Parking Required

Based on the car parking standard set out in the Fingal Development Plan 2017 – 2023, the total car parking required to serve the proposed development is 1,062 spaces as calculated in Table 33 below.

There are no car parking standards set out for duplexes in Table 12.8 of the current Development Plan. Therefore, for the purpose of calculation, the car parking standards for apartments have been applied for the duplex units.

Land Use	No. Units	Car Parking Spaces Required
Houses (Maisonettes) 1 bedroom	8 units	8 spaces for residents
Houses 3 or more bedrooms	110 units	220 spaces for residents
Apartments 1 bedroom	137 units	137 spaces for residents + 27 spaces for visitors
Apartments/Duplexes 2 bedrooms	278 units	417 spaces for residents + 55 spaces for visitors
Apartments/Duplexes 3 bedrooms	88 units	176 spaces for residents + 17 spaces for visitors
Crèche	506.5 sqm (8 classrooms)	4 spaces
Total	621 units 506.5 sqm (8 classrooms)	958 spaces for residents + 99 spaces for visitors + 4 spaces for the creche

Table 35 | *Fingal Development Plan 2017 – 2023 - Car Parking Spaces Required.*

12.3 Design Standards for New Apartments – December 2020

In December 2020, a revised version of the document "Sustainable Urban Housing: Design Standard for New Apartments" was released. The parking standards set out in this document are considerably lower than those contained in the Fingal Development Plan 2017 – 2023 in respect to apartment developments.

The following extracts from the "Design Standards for New Apartments – December 2020" summarise the guidelines for parking:

"*In suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare net (18 per acre), planning authorities must consider a reduced overall car parking standards and apply an appropriate maximum car parking standard."*

12.4 Car Parking Proposed

The number of car parking spaces projected to serve the proposed development is presented in Table 34 below.

As shown in that table, the proposed development will be served by a total of 705 car parking spaces, with 220 spaces for the houses, 8 spaces for the maisonettes, 410 spaces for the apartment & duplex residents, 32 for the apartment & duplex visitors, 4 spaces for the creche, 5 car sharing spaces, 12 EV parking spaces and 14 Accessible parking spaces.

It can be noticed that the number of parking spaces proposed for the apartments and duplexes, are below the FCC requirements set out above. The reduced provision for these units is in line with the *'Design Standard for New Apartments – December 2020'* and reflects the location of the proposed development in relation to public transport and within the ME – Metro Economic Corridor zoned land as per Fingal Development Plan. For further details refer to the Car Parking Strategy report accompanying the documentation package.

Land Use	No. Units	Standard	Car Parking Spaces Proposed
Maisonettes	8 units	1 space per unit	8 spaces
Houses	110 units	2 spaces per unit	220 spaces
Apartments & Duplexes	503 units	0.81 spaces per unit for residents 1 space per 15 units for visitors	410 spaces for residents + 32 spaces for visitors +
Creche	506.5 sqm (8 classrooms)	0.5 space per classroom	4 spaces
EV Parking	-	1 EV parking space per 51 residential units	12 spaces
Accessible Parking	-	1 accessible parking space per 44 residential units	14 spaces
Car Sharing	-	1 car sharing space per 124 residential units	5 spaces
Total	621 units 506.5 sqm (8 classrooms)	-	705 spaces in total

Table 36 | *Proposed Car Parking.*

13. Cycle Parking

13.1 Fingal Development Plan 2017 - 2023

Standards for bicycle parking in new developments are set out in Table 12.9 of the Fingal Development Plan 2017 - 2023. Based on that, Table 35 below sets out the cycle parking requirements applicable to the subject proposed development.

Land Use	FDP Standard	Norm or Max
Apartment	1 per unit + 1 visitor space per 5 units	Norm
Crèche	0.5 space per classroom	Maximum

Table 37 | *Fingal Development Plan 2017 – 2023 - Cycle Parking Standards.*

13.2 Cycle Parking Required

Based on the cycle parking standard set out in the Fingal Development Plan 2017 – 2023, the total cycle parking required to serve the proposed development is 608 spaces as calculated in Table 36.

As for car parking, the cycle parking standard for apartments have been applied for the duplex units.

Land Use	No. Units	Cycle Parking Spaces Required
Apartment + Duplexes	349 units + 154 units	349 spaces for apartment residents + 154 spaces for duplexes residents + 100 spaces for duplex/apartment visitors
Crèche	506.5 sqm (8 classrooms)	4 spaces for the creche
Total	349 apartments 154 duplexes 506.5 sqm (8 classrooms)	503 spaces for residents + 100 spaces for visitors + 4 spaces for the creche

Table 38 | *Fingal Development Plan 2017 – 2023 - Cycle Parking Spaces Required.*

13.3 Design Standard for New Apartments – December 2020

The following extracts from the "Design Standards for New Apartments – December 2020" summarise the guidelines for cycle parking:

"*A general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/enlargement, etc.*"

13.4 Cycle Parking Proposed

The number of cycle parking spaces projected to serve the proposed development is presented in Table 37 below.

Land Use	No. Units	Proposed Standard	Proposed Bicycle Parking Spaces
Apartments	349 units	1.51 space per unit	528 spaces
Duplexes	154 units	1.56 space per unit	240 units
Visitors	503 units	1 visitor space per 6.3 apartment/duplex units	80 spaces
Creche	8 classrooms	1.0 space per classroom	8 spaces
Total	517 units 8 classrooms	-	856 spaces

Table 39 | *Proposed Cycle Parking.*

In addition to the 856 bike parking spaces, 21 motorbike spaces will also be proposed.

14. Conclusion

Waterman Moylan Consulting Engineers have been appointed by Cairn Homes Ltd. to prepare this Traffic and Transport Assessment (TTA) to assess the impact of a proposed residential development and to highlight sustainable forms of transportation that are accessible from the subject site onto the surrounding transportation network.

The main vehicle access to the proposed development will be provide from south via a proposed priority-controlled T-junction on Glen Ellan Road, with a secondary access from west via Jugback Lane/Terrace.

The proposed scheme consists of the development of 621 no. residential units comprising of 118 no. houses/maisonettes, 154 no. duplexes and 349 no. apartments together with a Creche facility (506.5 sqm). It is proposed that the subject development will be delivered in three phases.

Phase 1 consisting of 118 no. houses/maisonettes and 78 no. duplexes.

Phase 2 consisting of 76 no. duplexes.

Phase 3 consisting of 349 no. apartments and the creche.

The estimated opening year for each phase is: 2023 for Phase 1, 2025 for Phase 2 and 2027 for Phase 3.

The traffic expected to be generated by the proposed development during each phase has been derived using TRICS trip rates.

Phase 1 is estimated to generate a total of 87 car trips in the AM peak hour (28 inbound and 59 outbound) and a total of 89 car trips in the PM peak hour (54 inbound and 35 outbound).

For Phase 2 (cumulative with Phase 1) it was estimated 39 inbound and 82 outbound car trips in the AM peak hour (121 two-way) and 75 inbound and 48 outbound trips in the PM peak hour (123 two-way).

The overall proposed development, considering Phases 1, 2 and 3, is estimated to generate a total of 249 car trips in the AM peak hour (80 inbound and 169 outbound) and a total of 253 car trips in the PM peak hour (155 inbound and 98 outbound).

Five junctions were assessed as part of the subject report:

Junction 1 (Roundabout): Ashton Distributor Road / Glen Ellan Road.

Junction 2 (Roundabout): Applewood Main Street / Glen Ellan Road.

Junction 3 (Signalised): Balheary Road / Glen Ellan Road / Access Road to Swords Business Campus.

Junction 4 (Signalised): Balheary Road / R125 / Castlegrange Green.

Junction 5 (Roundabout): R132 Dublin Road / R125.

Junctions 1 and 2 are currently operating well within capacity during both peak hours. The additional traffic estimated for the proposed overall development will increase the level of traffic on Junctions 1 and 2 by less than 5%. Therefore, as part the subject application no further modelling was carried out.

Junction 3 is currently operating within capacity for the PM peak hour and at capacity during the AM peak hour. For the future assessment year of 2025, even without the proposed development in place, Junction 3 would operate above capacity in the AM peak hour.

As part of the subject application, an upgraded layout is proposed for Junction 3. With this new layout, the modelling results indicate that Junction 3 would operate within capacity during both peak hours for all assessed scenarios.

Junction 4 is currently operating within capacity during both AM and PM peak hours and would continue to do so for the future assessment year of 2042 with Proposed Development.

Junction 5 is currently operating within capacity in the PM peak hour and over capacity during the AM peak hour. Fingal County Council recognises that this roundabout is operating over capacity.

As part of the subject development works an upgraded layout for Junction 5 is proposed. With the new configuration, the modelling results indicate that Junction 5 would operate within capacity during both peak hours for all assessed scenarios.

Oldtown-Mooretown LAP sets out major upgrade layouts for Junctions 3, 4 and 5. With these new layouts in place, it is expected that the operation capacities of all junctions will be further increased.

Appendices

A. Swords Express Timetable

SWORDS TO CITY | MON -FRI TIMETABLE

SWORDS EXPRESS

	507	505	500	500X	500X	502	500	500	505	500	500X	500X	503	501X	501	500	507	503	505	503
Abbeyvale	06:00	---	06:15	06:45	06:50	---	07:00	07:05	---	---	---	07:20	07:25	---	---	07:35	07:40	07:45	---	07:50
Swords Manor	**06:01**	**---**	**06:16**	**06:46**	**06:51**	**---**	**07:01**	**07:06**	**---**	**---**	**---**	**07:21**	**07:26**	**---**	**---**	**07:36**	**07:41**	**07:46**	**---**	**07:51**
Valley View	06:01	---	06:16	06:46	06:51	---	07:01	07:06	---	---	---	07:21	07:26	---	---	07:36	07:41	07:46	---	07:51
The Gallops	**06:01**	**---**	**06:16**	**06:46**	**06:51**	**---**	**07:01**	**07:06**	**---**	**---**	**---**	**07:21**	**07:26**	**---**	**---**	**07:36**	**07:41**	**07:46**	**---**	**07:51**
Lios Cian	06:02	---	06:17	06:47	06:52	---	07:02	07:07	---	---	---	07:22	07:27	---	---	07:37	07:42	07:47	---	07:52
Cianlea	**06:02**	**---**	**06:17**	**06:47**	**06:52**	**---**	**07:02**	**07:07**	**---**	**---**	**---**	**07:22**	**07:27**	**---**	**---**	**07:37**	**07:42**	**07:47**	**---**	**07:52**
Laurelton	06:03	---	06:18	06:48	06:53	---	07:03	07:08	---	---	---	07:23	07:28	---	---	07:38	07:43	07:48	---	07:53
Swords Educate Together	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Miller's Glen	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Applewood Estate	**06:05**	**---**	**06:20**	**06:50**	**06:55**	**---**	**07:05**	**07:10**	**---**	**07:20**	**07:24**	**07:25**	**07:30**	**---**	**---**	**07:40**	**07:45**	**07:50**	**---**	**07:55**
Jugback Lane	06:06	---	06:21	06:51	06:56	---	07:06	07:11	---	07:21	07:25	07:26	07:31	---	---	07:41	07:46	07:51	---	07:56
Saint Colmcille's GFC	**06:07**	**---**	**06:22**	**06:52**	**06:57**	**---**	**07:07**	**07:12**	**---**	**07:22**	**07:26**	**07:27**	**07:32**	**---**	**---**	**07:42**	**07:47**	**07:52**	**---**	**07:57**
West Seatown	06:10	---	06:25	06:55	07:00	---	07:10	07:15	---	07:25	07:29	07:30	07:35	---	---	07:45	07:50	07:55	---	08:00
Seatown Road	**06:12**	**---**	**06:27**	**06:57**	**07:02**	**---**	**07:12**	**07:17**	**---**	**07:27**	**07:31**	**07:32**	**07:37**	**---**	**---**	**07:47**	**07:52**	**07:57**	**---**	**08:02**
Swords Bypass	06:13	---	06:28	06:58	07:03	---	07:13	07:18	---	07:28	07:32	07:33	07:38	---	---	07:48	07:53	07:58	---	08:03
Malahide Roundabout	**---**	**---**	**06:29**	**06:59**	**07:04**	**---**	**07:14**	**07:19**	**---**	**07:29**	**07:33**	**07:34**	**07:39**	**---**	**---**	**07:49**	**---**	**07:59**	**---**	**08:04**
Pavilions Shopping Centre	---	---	06:29	07:00	07:05	---	07:14	07:19	---	07:29	07:35	07:36	07:39	07:55	07:55	07:49	---	08:00	---	08:05
Dublin Road (Penneys)	**---**	**---**	**06:30**	**07:01**	**07:06**	**---**	**07:15**	**07:20**	**---**	**07:30**	**07:36**	**07:37**	**07:40**	**07:56**	**07:56**	**07:50**	**---**	**08:01**	**---**	**08:06**
Dublin Road (Topaz)	---	---	---	07:03	07:08	---	---	---	---	---	07:38	07:39	---	07:58	---	---	---	---	---	---
Pinnock Hill r/about	**---**	**---**	**---**	**07:04**	**07:09**	**---**	**---**	**---**	**---**	**---**	**07:39**	**07:40**	**---**	**07:59**	**---**	**---**	**---**	**---**	**---**	**---**
Reids Furniture	---	---	---	07:05	07:10	---	---	---	---	---	07:40	07:41	---	08:00	---	---	---	---	---	---
Swords b/pass opp Texaco	**---**	**---**	**---**	**07:06**	**07:11**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**08:01**	**---**	**---**	**---**	**---**	**---**	**---**
National Show Ground	---	---	---	07:07	07:12	---	---	---	---	---	---	---	---	08:02	---	---	---	---	---	---
Highfields	**---**	**06:25**	**06:32**	**---**	**---**	**07:16**	**07:17**	**07:22**	**07:25**	**07:32**	**---**	**---**	**07:42**	**---**	**07:58**	**07:52**	**---**	**08:03**	**08:00**	**08:08**
Ballintrane	---	06:26	06:33	---	---	07:17	07:18	07:23	07:26	07:33	---	---	07:43	---	07:59	07:53	---	08:04	08:01	08:09
River Valley Lawn	**---**	**06:27**	**---**	**---**	**---**	**---**	**---**	**---**	**07:27**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**08:02**	**---**
River Valley Heights	---	06:28	---	---	---	---	---	---	07:28	---	---	---	---	---	---	---	---	---	08:03	---
Cherry Garth Estate	**---**	**06:28**	**---**	**---**	**---**	**---**	**---**	**---**	**07:28**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**08:03**	**---**
Rathingle, Forest View	---	06:29	---	---	---	---	---	---	07:29	---	---	---	---	---	---	---	---	---	08:04	---
Cherry Avenue	**---**	**06:29**	**---**	**---**	**---**	**---**	**---**	**---**	**07:29**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**08:04**	**---**
Rathingle Road	---	06:30	---	---	---	---	---	---	07:30	---	---	---	---	---	---	---	---	---	08:05	---
Boroimhe Laurels	**---**	**06:31**	**06:34**	**---**	**---**	**07:18**	**07:19**	**07:24**	**07:31**	**07:34**	**---**	**---**	**07:44**	**---**	**08:00**	**07:54**	**---**	**08:05**	**08:06**	**08:10**
Boroimhe Maples	---	06:32	06:35	---	---	07:19	07:20	07:25	07:32	07:35	---	---	07:45	---	08:01	07:55	---	08:06	08:07	08:11
Airside Road	**---**	**06:33**	**06:36**	**---**	**---**	**07:20**	**07:21**	**07:26**	**07:33**	**07:36**	**07:44**	**07:45**	**07:46**	**---**	**08:02**	**07:56**	**---**	**08:07**	**08:08**	**08:12**
Airside Central	---	06:33	06:36	---	---	07:20	07:21	07:26	07:33	07:36	07:45	07:46	07:46	---	08:02	07:56	---	08:07	08:08	08:12
Malahide Rd (Foxwood Est)	**06:14**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**07:54**	**---**	**---**	**---**
Seamount View Est	06:15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	07:55	---	---	---
Mountgorry Way	**06:16**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**07:56**	**---**	**---**	**---**
Holywell Square	06:17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	07:57	---	---	---
Holywell Distributor Road	**06:18**	**06:34**	**06:37**	**---**	**---**	**07:21**	**07:22**	**07:27**	**07:34**	**07:37**	**07:46**	**07:47**	**07:47**	**---**	**08:03**	**07:57**	**07:58**	**08:08**	**08:09**	**08:13**
M1 Drinan	06:19	06:35	06:38	---	---	07:22	07:23	07:28	07:35	07:38	07:47	07:48	07:48	---	08:04	07:58	07:59	08:09	08:10	08:14
East Wall Road	**06:32**	**06:48**	**06:51**	**07:25**	**07:30**	**07:35**	**07:36**	**07:41**	**07:48**	**07:51**	**08:00**	**08:01**	**08:01**	**08:20**	**08:17**	**08:11**	**08:12**	**08:22**	**08:23**	**08:27**
Convention Centre	06:35	06:51	06:54	07:28	07:33	07:40	07:41	07:46	07:53	07:56	08:03	08:04	08:06	08:23	08:22	08:16	08:17	08:27	08:28	08:32
Seán O'Casey Bridge	**06:36**	**06:52**	**06:55**	**07:29**	**07:34**	**07:42**	**07:43**	**07:48**	**07:55**	**07:58**	**08:04**	**08:05**	**08:08**	**08:24**	**08:24**	**08:18**	**08:19**	**08:29**	**08:30**	**08:34**
Eden Quay	06:39	06:55	06:58	07:35	07:40	07:48	07:49	07:54	08:01	08:04	08:10	08:11	08:14	08:30	08:30	08:24	08:25	08:35	08:36	08:40
Merrion Square													**08:20**					**08:41**		**08:46**

SWORDS TO CITY | MON -FRI TIMETABLE

SWORDS EXPRESS

	501	502	500X	500X	500X	500	505	501	501	502	500	500	502	500	500	507	504	500	500	501
Abbeyvale	---	---	07:55	---	08:00	08:05	---	---	---	---	08:25	08:30	---	08:45	08:50	09:05	---	09:15	09:45	---
Swords Manor	**---**	**---**	**07:56**	**---**	**08:01**	**08:06**	**---**	**---**	**---**	**---**	**08:26**	**08:31**	**---**	**08:46**	**08:51**	**09:06**	**---**	**09:16**	**09:46**	**---**
Valley View	---	---	07:56	---	08:01	08:06	---	---	---	---	08:26	08:31	---	08:46	08:51	09:06	---	09:16	09:46	---
The Gallops	**---**	**---**	**07:56**	**---**	**08:01**	**08:06**	**---**	**---**	**---**	**---**	**08:26**	**08:31**	**---**	**08:46**	**08:51**	**09:06**	**---**	**09:16**	**09:46**	**---**
Lios Cian	---	---	07:57	---	08:02	08:07	---	---	---	---	08:27	08:32	---	08:47	08:52	09:07	---	09:17	09:47	---
Cianlea	**---**	**---**	**07:57**	**---**	**08:02**	**08:07**	**---**	**---**	**---**	**---**	**08:27**	**08:32**	**---**	**08:47**	**08:52**	**09:07**	**---**	**09:17**	**09:47**	**---**
Laurelton	---	---	07:58	---	08:03	08:08	---	---	---	---	08:28	08:33	---	08:48	08:53	09:08	---	09:18	09:48	---
Swords Educate Together	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Miller's Glen	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Applewood Estate	**---**	**---**	**08:00**	**08:03**	**08:05**	**08:10**	**---**	**---**	**---**	**---**	**08:30**	**08:35**	**---**	**08:50**	**08:55**	**09:10**	**---**	**09:20**	**09:50**	**---**
Jugback Lane	---	---	08:01	08:04	08:06	08:11	---	---	---	---	08:31	08:36	---	08:51	08:56	09:11	---	09:21	09:51	---
Saint Colmcille's GFC	**---**	**---**	**08:02**	**08:05**	**08:07**	**08:12**	**---**	**---**	**---**	**---**	**08:32**	**08:37**	**---**	**08:52**	**08:57**	**09:12**	**---**	**09:22**	**09:52**	**---**
West Seatown	---	---	08:05	08:08	08:10	08:15	---	---	---	---	08:35	08:40	---	08:55	09:00	09:15	---	09:25	09:55	---
Seatown Road	**---**	**---**	**08:07**	**08:10**	**08:12**	**08:17**	**---**	**---**	**---**	**---**	**08:37**	**08:42**	**---**	**08:57**	**09:02**	**09:17**	**---**	**09:27**	**09:57**	**---**
Swords Bypass	---	---	08:08	08:11	08:13	08:18	---	---	---	---	08:38	08:43	---	08:58	09:03	09:18	---	09:28	09:58	---
Malahide Roundabout	**---**	**---**	**08:09**	**08:12**	**08:14**	**08:19**	**---**	**---**	**---**	**---**	**08:39**	**08:44**	**---**	**08:59**	**09:04**	**---**	**---**	**09:29**	**09:59**	**---**
Pavilions Shopping Centre	08:05	---	---	---	---	08:19	---	08:25	08:30	---	08:39	08:44	---	08:59	09:04	---	---	09:29	09:59	10:00
Dublin Road (Penneys)	**08:06**	**---**	**---**	**---**	**---**	**08:20**	**---**	**08:26**	**08:31**	**---**	**08:40**	**08:45**	**---**	**09:00**	**09:05**	**---**	**---**	**09:30**	**10:00**	**10:01**
Dublin Road (Topaz)	08:08	---	---	---	---	---	---	08:28	08:33	---	---	---	---	---	---	---	---	---	---	---
Pinnock Hill r/about	**08:09**	**---**	**08:14**	**08:17**	**08:19**	**---**	**---**	**08:29**	**08:34**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Reids Furniture	08:10	---	08:15	08:18	08:20	---	---	08:30	08:35	---	---	---	---	---	---	---	---	---	---	---
Swords b/pass opp Texaco	**---**	**---**	**08:16**	**08:19**	**08:21**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
National Show Ground	---	---	08:17	08:20	08:22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Highfields	**---**	**08:12**	**---**	**---**	**---**	**08:22**	**08:25**	**---**	**---**	**08:47**	**08:42**	**08:47**	**08:50**	**09:02**	**09:07**	**---**	**---**	**09:32**	**10:02**	**10:03**
Ballintrane	---	08:13	---	---	---	08:23	08:26	---	---	08:48	08:43	08:48	08:51	09:03	09:08	---	---	09:33	10:03	10:04
River Valley Lawn	**---**	**---**	**---**	**---**	**---**	**---**	**08:27**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
River Valley Heights	---	---	---	---	---	---	08:28	---	---	---	---	---	---	---	---	---	---	---	---	---
Cherry Garth Estate	**---**	**---**	**---**	**---**	**---**	**---**	**08:28**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Rathingle, Forest View	---	---	---	---	---	---	08:29	---	---	---	---	---	---	---	---	---	---	---	---	---
Cherry Avenue	**---**	**---**	**---**	**---**	**---**	**---**	**08:29**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Rathingle Road	---	---	---	---	---	---	08:30	---	---	---	---	---	---	---	---	---	---	---	---	---
Boroimhe Laurels	**---**	**08:14**	**---**	**---**	**---**	**08:24**	**08:31**	**---**	**---**	**08:49**	**08:44**	**08:49**	**08:52**	**09:04**	**09:09**	**---**	**09:34**	**09:34**	**10:04**	**10:05**
Boroimhe Maples	---	08:15	---	---	---	08:25	08:32	---	---	08:50	08:45	08:50	08:53	09:05	09:10	---	09:35	09:35	10:05	10:06
Airside Road	**08:14**	**08:16**	**---**	**---**	**---**	**08:26**	**08:33**	**08:34**	**08:39**	**08:51**	**08:46**	**08:51**	**08:54**	**09:06**	**09:11**	**---**	**09:36**	**09:36**	**10:06**	**10:07**
Airside Central	08:15	08:16	---	---	---	08:26	08:33	08:35	08:40	08:51	08:46	08:51	08:54	09:06	09:11	---	09:36	09:36	10:06	10:07
Malahide Rd (Foxwood Est)	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**09:19**	**---**	**---**	**---**	**---**
Seamount View Est	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	09:20	---	---	---	---
Mountgorry Way	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**09:21**	**---**	**---**	**---**	**---**
Holywell Square	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	09:22	---	---	---	---
Holywell Distributor Road	**08:16**	**08:17**	**---**	**---**	**---**	**08:27**	**08:34**	**08:36**	**08:41**	**08:52**	**08:47**	**08:52**	**08:55**	**09:07**	**09:12**	**09:23**	**09:37**	**09:37**	**10:07**	**10:08**
M1 Drinan	08:17	08:18	---	---	---	08:28	08:35	08:37	08:42	08:53	08:48	08:53	08:56	09:08	09:13	09:24	09:38	09:38	10:08	10:09
East Wall Road	**08:30**	**08:31**	**08:35**	**08:38**	**08:40**	**08:41**	**08:48**	**08:50**	**08:55**	**09:06**	**09:01**	**09:06**	**09:09**	**09:21**	**09:26**	**09:37**	**09:51**	**09:51**	**10:21**	**10:22**
Convention Centre	08:33	08:36	08:38	08:41	08:43	08:46	08:53	08:53	08:58	09:11	09:06	09:11	09:14	09:26	09:31	09:42	09:56	09:56	10:24	10:25
Seán O'Casey Bridge	**08:34**	**08:38**	**08:39**	**08:42**	**08:44**	**08:48**	**08:55**	**08:54**	**08:59**	**09:13**	**09:08**	**09:13**	**09:16**	**09:28**	**09:33**	**09:44**	**09:58**	**09:58**	**10:25**	**10:26**
Eden Quay	08:40	08:44	08:45	08:48	08:50	08:54	09:01	09:00	09:05	09:19	09:14	09:19	09:22	09:34	09:39	09:50	10:04	10:04	10:28	10:29
Merrion Square																				

SWORDS TO CITY | MON -FRI TIMETABLE

SWORDS EXPRESS

	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	501	500	501X	500	500
Abbeyvale	10:15	10:45	11:15	11:45	12:15	12:45	13:15	13:45	14:15	14:45	15:15	15:45	16:15	16:45	17:15	---	17:40	---	18:25	18:55
Swords Manor	**10:16**	**10:46**	**11:16**	**11:46**	**12:16**	**12:46**	**13:16**	**13:46**	**14:16**	**14:46**	**15:16**	**15:46**	**16:16**	**16:46**	**17:16**	**---**	**17:41**	**---**	**18:26**	**18:56**
Valley View	10:16	10:46	11:16	11:46	12:16	12:46	13:16	13:46	14:16	14:46	15:16	15:46	16:16	16:46	17:16	---	17:41	---	18:26	18:56
The Gallops	**10:16**	**10:46**	**11:16**	**11:46**	**12:16**	**12:46**	**13:16**	**13:46**	**14:16**	**14:46**	**15:16**	**15:46**	**16:16**	**16:46**	**17:16**	**---**	**17:41**	**---**	**18:26**	**18:56**
Lios Cian	10:17	10:47	11:17	11:47	12:17	12:47	13:17	13:47	14:17	14:47	15:17	15:47	16:17	16:47	17:17	---	17:42	---	18:27	18:57
Cianlea	**10:17**	**10:47**	**11:17**	**11:47**	**12:17**	**12:47**	**13:17**	**13:47**	**14:17**	**14:47**	**15:17**	**15:47**	**16:17**	**16:47**	**17:17**	**---**	**17:42**	**---**	**18:27**	**18:57**
Laurelton	10:18	10:48	11:18	11:48	12:18	12:48	13:18	13:48	14:18	14:48	15:18	15:48	16:18	16:48	17:18	---	17:43	---	18:28	18:58
Swords Educate Together	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Miller's Glen	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Applewood Estate	**10:20**	**10:50**	**11:20**	**11:50**	**12:20**	**12:50**	**13:20**	**13:50**	**14:20**	**14:50**	**15:20**	**15:50**	**16:20**	**16:50**	**17:20**	**---**	**17:45**	**---**	**18:30**	**19:00**
Jugback Lane	10:21	10:51	11:21	11:51	12:21	12:51	13:21	13:51	14:21	14:51	15:21	15:51	16:21	16:51	17:21	---	17:46	---	18:31	19:01
Saint Colmcille's GFC	**10:22**	**10:52**	**11:22**	**11:52**	**12:22**	**12:52**	**13:22**	**13:52**	**14:22**	**14:52**	**15:22**	**15:52**	**16:22**	**16:52**	**17:22**	**---**	**17:47**	**---**	**18:32**	**19:02**
West Seatown	10:25	10:55	11:25	11:55	12:25	12:55	13:25	13:55	14:25	14:55	15:25	15:55	16:25	16:55	17:25	---	17:50	---	18:35	19:05
Seatown Road	**10:27**	**10:57**	**11:27**	**11:57**	**12:27**	**12:57**	**13:27**	**13:57**	**14:27**	**14:57**	**15:27**	**15:57**	**16:27**	**16:57**	**17:27**	**---**	**17:52**	**---**	**18:37**	**19:07**
Swords Bypass	10:28	10:58	11:28	11:58	12:28	12:58	13:28	13:58	14:28	14:58	15:28	15:58	16:28	16:58	17:28	---	17:53	---	18:38	19:08
Malahide Roundabout	**10:29**	**10:59**	**11:29**	**11:59**	**12:29**	**12:59**	**13:29**	**13:59**	**14:29**	**14:59**	**15:29**	**15:59**	**16:29**	**16:59**	**17:29**	**---**	**17:54**	**---**	**18:39**	**19:09**
Pavilions Shopping Centre	10:29	10:59	11:29	11:59	12:29	12:59	13:29	13:59	14:29	14:59	15:29	15:59	16:29	16:59	17:29	---	17:54	18:10	18:39	19:09
Dublin Road (Penneys)	**10:30**	**11:00**	**11:30**	**12:00**	**12:30**	**13:00**	**13:30**	**14:00**	**14:30**	**15:00**	**15:30**	**16:00**	**16:30**	**17:00**	**17:30**	**---**	**17:55**	**18:11**	**18:40**	**19:10**
Dublin Road (Topaz)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18:13	---	---
Pinnock Hill r/about	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**17:40**	**---**	**18:14**	**---**	**---**
Reids Furniture	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17:41	---	18:15	---	---
Swords b/pass opp Texaco	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**18:16**	**---**	**---**
National Show Ground	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18:17	---	---
Highfields	**10:32**	**11:02**	**11:32**	**12:02**	**12:32**	**13:02**	**13:32**	**14:02**	**14:32**	**15:02**	**15:32**	**16:02**	**16:32**	**17:02**	**17:32**	**---**	**17:57**	**---**	**18:42**	**19:12**
Ballintrane	10:33	11:03	11:33	12:03	12:33	13:03	13:33	14:03	14:33	15:03	15:33	16:03	16:33	17:03	17:33	---	17:58	---	18:43	19:13
River Valley Lawn	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
River Valley Heights	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cherry Garth Estate	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Rathingle, Forest View	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cherry Avenue	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Rathingle Road	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boroimhe Laurels	**10:34**	**11:04**	**11:34**	**12:04**	**12:34**	**13:04**	**13:34**	**14:04**	**14:34**	**15:04**	**15:34**	**16:04**	**16:34**	**17:04**	**17:34**	**---**	**17:59**	**---**	**18:44**	**19:14**
Boroimhe Maples	10:35	11:05	11:35	12:05	12:35	13:05	13:35	14:05	14:35	15:05	15:35	16:05	16:35	17:05	17:35	---	18:00	---	18:45	19:15
Airside Road	**10:36**	**11:06**	**11:36**	**12:06**	**12:36**	**13:06**	**13:36**	**14:06**	**14:36**	**15:06**	**15:36**	**16:06**	**16:36**	**17:06**	**17:36**	**17:45**	**18:01**	**---**	**18:46**	**19:16**
Airside Central	10:36	11:06	11:36	12:06	12:36	13:06	13:36	14:06	14:36	15:06	15:36	16:06	16:36	17:06	17:36	17:46	18:01	---	18:46	19:16
Malahide Rd (Foxwood Est)	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Seamount View Est	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mountgorry Way	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Holywell Square	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Holywell Distributor Road	**10:37**	**11:07**	**11:37**	**12:07**	**12:37**	**13:07**	**13:37**	**14:07**	**14:37**	**15:07**	**15:37**	**16:07**	**16:37**	**17:07**	**17:37**	**17:47**	**18:02**	**---**	**18:47**	**19:17**
M1 Drinan	10:38	11:08	11:38	12:08	12:38	13:08	13:38	14:08	14:38	15:08	15:38	16:08	16:38	17:08	17:38	17:48	18:03	---	18:48	19:18
East Wall Road	**10:51**	**11:21**	**11:51**	**12:21**	**12:51**	**13:21**	**13:51**	**14:21**	**14:51**	**15:21**	**15:51**	**16:21**	**16:51**	**17:21**	**17:51**	**18:01**	**18:16**	**18:35**	**19:01**	**19:31**
Convention Centre	10:54	11:24	11:54	12:24	12:54	13:24	13:54	14:24	14:54	15:24	15:54	16:24	16:56	17:26	17:56	18:04	18:21	18:38	19:06	19:36
Seán O'Casey Bridge	**10:55**	**11:25**	**11:55**	**12:25**	**12:55**	**13:25**	**13:55**	**14:25**	**14:55**	**15:25**	**15:55**	**16:25**	**16:58**	**17:28**	**17:58**	**18:05**	**18:23**	**18:39**	**19:08**	**19:38**
Eden Quay	10:58	11:28	11:58	12:28	12:58	13:28	13:58	14:28	14:58	15:28	15:58	16:28	17:04	17:34	18:04	18:11	18:29	18:45	19:14	19:44
Merrion Square																				

SWORDS TO CITY | MON -FRI TIMETABLE

SWORDS EXPRESS

	500	500	500	500	500
Abbeyvale	20:00	20:30	21:30	22:00	23:00
Swords Manor	**20:01**	**20:31**	**21:31**	**22:01**	**23:01**
Valley View	20:01	20:31	21:31	22:01	23:01
The Gallops	**20:01**	**20:31**	**21:31**	**22:01**	**23:01**
Lios Cian	20:02	20:32	21:32	22:02	23:02
Cianlea	**20:02**	**20:32**	**21:32**	**22:02**	**23:02**
Laurelton	20:03	20:33	21:33	22:03	23:03
Swords Educate Together	---	---	---	---	---
Miller's Glen	---	---	---	---	---
Applewood Estate	**20:05**	**20:35**	**21:35**	**22:05**	**23:05**
Jugback Lane	20:06	20:36	21:36	22:06	23:06
Saint Colmcille's GFC	**20:07**	**20:37**	**21:37**	**22:07**	**23:07**
West Seatown	20:10	20:40	21:40	22:10	23:10
Seatown Road	**20:12**	**20:42**	**21:42**	**22:12**	**23:12**
Swords Bypass	20:13	20:43	21:43	22:13	23:13
Malahide Roundabout	**20:14**	**20:44**	**21:44**	**22:14**	**23:14**
Pavilions Shopping Centre	20:14	20:44	21:44	22:14	23:14
Dublin Road (Penneys)	**20:15**	**20:45**	**21:45**	**22:15**	**23:15**
Dublin Road (Topaz)	---	---	---	---	---
Pinnock Hill r/about	---	---	---	---	---
Reids Furniture	---	---	---	---	---
Swords b/pass opp Texaco	---	---	---	---	---
National Show Ground	---	---	---	---	---
Highfields	**20:17**	**20:47**	**21:47**	**22:17**	**23:17**
Ballintrane	20:18	20:48	21:48	22:18	23:18
River Valley Lawn	---	---	---	---	---
River Valley Heights	---	---	---	---	---
Cherry Garth Estate	---	---	---	---	---
Rathingle, Forest View	---	---	---	---	---
Cherry Avenue	---	---	---	---	---
Rathingle Road	---	---	---	---	---
Boroimhe Laurels	**20:19**	**20:49**	**21:49**	**22:19**	**23:19**
Boroimhe Maples	20:20	20:50	21:50	22:20	23:20
Airside Road	**20:21**	**20:51**	**21:51**	**22:21**	**23:21**
Airside Central	20:21	20:51	21:51	22:21	23:21
Malahide Rd (Foxwood Est)	---	---	---	---	---
Seamount View Est	---	---	---	---	---
Mountgorry Way	---	---	---	---	---
Holywell Square	---	---	---	---	---
Holywell Distributor Road	**20:22**	**20:52**	**21:52**	**22:22**	**23:22**
M1 Drinan	20:23	20:53	21:53	22:23	23:23
East Wall Road	**20:36**	**21:06**	**22:06**	**22:36**	**23:36**
Convention Centre	20:39	21:09	22:09	22:39	23:39
Seán O'Casey Bridge	**20:40**	**21:10**	**22:10**	**22:40**	**23:40**
Eden Quay	20:43	21:13	22:13	22:43	23:43
Merrion Square					

CITY TO SWORDS | MON -FRI TIMETABLE

SWORDS EXPRESS

	500	500	501	501	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Merrion Square	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Eden Quay	**07:00**	**07:30**	**07:45**	**08:05**	**08:30**	**08:45**	**09:00**	**09:15**	**09:45**	**10:15**	**10:45**	**11:15**	**11:45**	**12:15**	**12:45**	**13:15**	**13:45**	**14:15**	**14:45**	**15:15**
IFSC	07:02	07:32	07:47	08:07	08:32	08:47	09:02	09:17	09:47	10:17	10:47	11:17	11:47	12:17	12:47	13:17	13:47	14:17	14:47	15:17
Custom House Quay (Jury's)	**07:03**	**07:34**	**07:49**	**08:09**	**08:34**	**08:49**	**09:04**	**09:19**	**09:48**	**10:18**	**10:48**	**11:18**	**11:48**	**12:18**	**12:48**	**13:18**	**13:48**	**14:18**	**14:48**	**15:18**
Custom House Quay (Clarion)	07:04	07:36	07:51	08:11	08:36	08:51	09:06	09:21	09:49	10:19	10:49	11:19	11:49	12:19	12:49	13:19	13:49	14:19	14:49	15:19
North Wall Quay	**07:05**	**07:38**	**07:53**	**08:13**	**08:38**	**08:53**	**09:08**	**09:23**	**09:50**	**10:20**	**10:50**	**11:20**	**11:50**	**12:20**	**12:50**	**13:20**	**13:50**	**14:20**	**14:50**	**15:20**
Point Depot (North Wall Quay)	07:06	07:39	07:54	08:14	08:39	08:54	09:09	09:24	09:51	10:21	10:51	11:21	11:51	12:21	12:51	13:21	13:51	14:21	14:51	15:21
Point Depot (East Wall Road)	**07:07**	**07:40**	**07:55**	**08:15**	**08:40**	**08:55**	**09:10**	**09:25**	**09:52**	**10:22**	**10:52**	**11:22**	**11:52**	**12:22**	**12:52**	**13:22**	**13:52**	**14:22**	**14:52**	**15:22**
Airport r/about	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
N1 Business Park	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Swords Bypass	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pinnock Hill r/about	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pinnock Hill after Travel Lodge	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Holywell Distributor Road	**07:22**	**07:57**	**08:12**	**08:32**	**08:57**	**09:12**	**09:27**	**09:42**	**10:07**	**10:37**	**11:07**	**11:37**	**12:07**	**12:37**	**13:07**	**13:37**	**14:07**	**14:37**	**15:07**	**15:37**
Holywell Square	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mountgorry Way	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Seamount View Est	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Malahide Rd (Foxwood Est)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Airside Central	07:23	07:59	08:14	08:34	08:59	09:14	09:29	09:44	10:08	10:38	11:08	11:38	12:08	12:38	13:08	13:38	14:08	14:38	15:08	15:38
Boroimhe Maples	**07:24**	**08:00**	---	---	**09:00**	**09:15**	**09:30**	**09:45**	**10:09**	**10:39**	**11:09**	**11:39**	**12:09**	**12:39**	**13:09**	**13:39**	**14:09**	**14:39**	**15:09**	**15:39**
Boroimhe Laurels	07:25	08:01	---	---	09:01	09:16	09:31	09:46	10:10	10:40	11:10	11:40	12:10	12:40	13:10	13:40	14:10	14:40	15:10	15:40
Rathingle Road	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cherry Avenue	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Rathingle, Forest View	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cherry Garth Estate	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
River Valley Heights	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
River Valley Lawn	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ballintrane	**07:26**	**08:02**	---	---	**09:02**	**09:17**	**09:32**	**09:47**	**10:11**	**10:41**	**11:11**	**11:41**	**12:11**	**12:41**	**13:11**	**13:41**	**14:11**	**14:41**	**15:11**	**15:41**
Highfields	07:27	08:03	---	---	09:03	09:18	09:33	09:48	10:12	10:42	11:12	11:42	12:12	12:42	13:12	13:42	14:12	14:42	15:12	15:42
Dublin Road (opp Penneys)	**07:28**	**08:05**	---	---	**09:05**	**09:20**	**09:35**	**09:50**	**10:13**	**10:43**	**11:13**	**11:43**	**12:13**	**12:43**	**13:13**	**13:43**	**14:13**	**14:43**	**15:13**	**15:43**
Malahide Roundabout	07:29	08:07	---	---	09:07	09:22	09:37	09:52	10:14	10:44	11:14	11:44	12:14	12:44	13:14	13:44	14:14	14:44	15:14	15:44
Seatown Road	**07:31**	**08:11**	**08:19**	**08:39**	**09:11**	**09:26**	**09:41**	**09:56**	**10:16**	**10:46**	**11:16**	**11:46**	**12:16**	**12:46**	**13:16**	**13:46**	**14:16**	**14:46**	**15:16**	**15:46**
West Seatown	07:33	08:13	---	08:41	09:13	09:28	09:43	09:58	10:18	10:48	11:18	11:48	12:18	12:48	13:18	13:48	14:18	14:48	15:18	15:48
Saint Colmcille's GFC	**07:36**	**08:16**	---	**08:44**	**09:16**	**09:31**	**09:46**	**10:01**	**10:21**	**10:51**	**11:21**	**11:51**	**12:21**	**12:51**	**13:21**	**13:51**	**14:21**	**14:51**	**15:21**	**15:51**
Jugback Lane	07:37	08:17	---	08:45	09:17	09:32	09:47	10:02	10:22	10:52	11:22	11:52	12:22	12:52	13:22	13:52	14:22	14:52	15:22	15:52
Applewood Estate	**07:38**	**08:18**	---	**08:46**	**09:18**	**09:33**	**09:48**	**10:03**	**10:23**	**10:53**	**11:23**	**11:53**	**12:23**	**12:53**	**13:23**	**13:53**	**14:23**	**14:53**	**15:23**	**15:53**
Miller's Glen	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Swords Educate Together	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Laurelton	07:39	08:19	---	08:47	09:19	09:34	09:49	10:04	10:24	10:54	11:24	11:54	12:24	12:54	13:24	13:54	14:24	14:54	15:24	15:54
Cianlea	**07:39**	**08:19**	---	**08:47**	**09:19**	**09:34**	**09:49**	**10:04**	**10:24**	**10:54**	**11:24**	**11:54**	**12:24**	**12:54**	**13:24**	**13:54**	**14:24**	**14:54**	**15:24**	**15:54**
Ardcian	07:40	08:20	---	08:48	09:20	09:35	09:50	10:05	10:25	10:55	11:25	11:55	12:25	12:55	13:25	13:55	14:25	14:55	15:25	15:55
Lios Cian	**07:41**	**08:21**	---	**08:48**	**09:21**	**09:36**	**09:51**	**10:06**	**10:26**	**10:56**	**11:26**	**11:56**	**12:26**	**12:56**	**13:26**	**13:56**	**14:26**	**14:56**	**15:26**	**15:56**
Valley View	07:41	08:21	---	08:49	09:21	09:36	09:51	10:06	10:26	10:56	11:26	11:56	12:26	12:56	13:26	13:56	14:26	14:56	15:26	15:56
Saint Cronan's Sout	**07:42**	**08:22**	---	**08:49**	**09:22**	**09:37**	**09:52**	**10:07**	**10:27**	**10:57**	**11:27**	**11:57**	**12:27**	**12:57**	**13:27**	**13:57**	**14:27**	**14:57**	**15:27**	**15:57**
Swords Manor	07:43	08:23	---	08:50	09:23	09:38	09:53	10:08	10:28	10:58	11:28	11:58	12:28	12:58	13:28	13:58	14:28	14:58	15:28	15:58

CITY TO SWORDS | MON -FRI TIMETABLE

SWORDS EXPRESS

	500	500	500	506	500	500X	505X	500	500X	500	505X	500	500	500X	505X	500	505X	503	500	500X
Merrion Square	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17:25	---	---
Eden Quay	**15:45**	**16:15**	**16:20**	**16:30**	**16:35**	**16:45**	**16:50**	**16:55**	**17:00**	**17:05**	**17:10**	**17:15**	**17:20**	**17:25**	**17:25**	**17:30**	**17:35**	**---**	**17:40**	**17:45**
IFSC	15:47	16:17	16:22	16:32	16:37	16:47	16:52	16:57	17:02	17:07	17:12	17:17	17:22	17:27	17:27	17:32	17:37	17:40	17:42	17:47
Custom House Quay (Jury's)	**15:48**	**16:19**	**16:24**	**16:34**	**16:39**	**16:49**	**16:54**	**16:59**	**17:04**	**17:09**	**17:14**	**17:19**	**17:24**	**17:29**	**17:29**	**17:34**	**17:39**	**17:42**	**17:44**	**17:49**
Custom House Quay (Clarion)	15:49	16:21	16:26	16:36	16:41	16:51	16:56	17:01	17:06	17:11	17:16	17:21	17:26	17:31	17:31	17:36	17:41	17:44	17:46	17:51
North Wall Quay	**15:50**	**16:23**	**16:28**	**16:38**	**16:43**	**16:53**	**16:58**	**17:03**	**17:08**	**17:13**	**17:18**	**17:23**	**17:28**	**17:33**	**17:33**	**17:38**	**17:43**	**17:46**	**17:48**	**17:53**
Point Depot (North Wall Quay)	15:51	16:24	16:29	16:39	16:44	16:54	16:59	17:04	17:09	17:14	17:19	17:24	17:29	17:34	17:34	17:39	17:44	17:47	17:49	17:54
Point Depot (East Wall Road)	**15:52**	**16:25**	**16:30**	**16:40**	**16:45**	**16:55**	**17:00**	**17:05**	**17:10**	**17:15**	**17:20**	**17:25**	**17:30**	**17:35**	**17:35**	**17:40**	**17:45**	**17:48**	**17:50**	**17:55**
Airport r/about	---	---	---	---	---	---	17:11	---	---	---	17:31	---	---	---	17:46	---	17:56	---	---	---
N1 Business Park	**---**	**---**	**---**	**---**	**---**	**---**	**17:13**	**---**	**---**	**---**	**17:33**	**---**	**---**	**---**	**17:48**	**---**	**17:58**	**---**	**---**	**---**
Swords Bypass	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pinnock Hill r/about	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Pinnock Hill after Travel Lodge	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Holywell Distributor Road	**16:07**	**16:42**	**16:47**	**16:57**	**17:02**	**17:12**	**---**	**17:22**	**17:27**	**17:32**	**---**	**17:42**	**17:47**	**17:52**	**---**	**17:57**	**---**	**18:05**	**18:07**	**18:12**
Holywell Square	---	---	---	16:58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mountgorry Way	**---**	**---**	**---**	**16:59**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Seamount View Est	---	---	---	17:00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Malahide Rd (Foxwood Est)	**---**	**---**	**---**	**17:01**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Airside Central	16:08	16:44	16:49	---	17:04	---	---	17:24	---	17:34	---	17:44	17:49	---	---	17:59	---	18:07	18:09	---
Boroimhe Maples	**16:09**	**16:45**	**16:50**	**---**	**17:05**	**---**	**17:14**	**17:25**	**---**	**17:35**	**17:34**	**17:45**	**17:50**	**---**	**17:49**	**18:00**	**17:59**	**18:08**	**18:10**	**---**
Boroimhe Laurels	16:10	16:46	16:51	---	17:06	---	17:15	17:26	---	17:36	17:35	17:46	17:51	---	17:50	18:01	18:00	18:09	18:11	---
Rathingle Road	**---**	**---**	**---**	**---**	**---**	**---**	**17:16**	**---**	**---**	**---**	**17:36**	**---**	**---**	**---**	**17:51**	**---**	**18:01**	**---**	**---**	**---**
Cherry Avenue	---	---	---	---	---	---	17:17	---	---	---	17:37	---	---	---	17:52	---	18:02	---	---	---
Rathingle, Forest View	**---**	**---**	**---**	**---**	**---**	**---**	**17:17**	**---**	**---**	**---**	**17:37**	**---**	**---**	**---**	**17:52**	**---**	**18:02**	**---**	**---**	**---**
Cherry Garth Estate	---	---	---	---	---	---	17:18	---	---	---	17:38	---	---	---	17:53	---	18:03	---	---	---
River Valley Heights	**---**	**---**	**---**	**---**	**---**	**---**	**17:18**	**---**	**---**	**---**	**17:38**	**---**	**---**	**---**	**17:53**	**---**	**18:03**	**---**	**---**	**---**
River Valley Lawn	---	---	---	---	---	---	17:19	---	---	---	17:39	---	---	---	17:54	---	18:04	---	---	---
Ballintrane	**16:11**	**16:47**	**16:52**	**---**	**17:07**	**---**	**17:19**	**17:27**	**---**	**17:37**	**17:39**	**17:47**	**17:52**	**---**	**17:54**	**18:02**	**18:04**	**18:10**	**18:12**	**---**
Highfields	16:12	16:48	16:53	---	17:08	---	17:20	17:28	---	17:38	17:40	17:48	17:53	---	17:55	18:03	18:05	18:11	18:13	---
Dublin Road (opp Penneys)	**16:13**	**16:50**	**16:55**	**---**	**17:10**	**---**	**17:21**	**17:30**	**---**	**17:40**	**17:41**	**17:50**	**17:55**	**---**	**17:56**	**18:05**	**18:06**	**18:13**	**18:15**	**---**
Malahide Roundabout	16:14	16:52	16:57	---	17:12	---	17:22	17:32	---	17:42	17:42	17:52	17:57	---	17:57	18:07	18:07	18:15	18:17	---
Seatown Road	**16:16**	**16:56**	**17:01**	**17:02**	**17:16**	**17:16**	**---**	**17:36**	**17:31**	**17:46**	**---**	**17:56**	**18:01**	**17:56**	**---**	**18:11**	**---**	**18:19**	**18:21**	**18:16**
West Seatown	16:18	16:58	17:03	17:04	17:18	17:18	---	17:38	17:33	17:48	---	17:58	18:03	17:58	---	18:13	---	18:21	18:23	18:18
Saint Colmcille's GFC	**16:21**	**17:01**	**17:06**	**17:07**	**17:21**	**17:21**	**---**	**17:41**	**17:36**	**17:51**	**---**	**18:01**	**18:06**	**18:01**	**---**	**18:16**	**---**	**18:24**	**18:26**	**18:21**
Jugback Lane	16:22	17:02	17:07	17:08	17:22	17:22	---	17:42	17:37	17:52	---	18:02	18:07	18:02	---	18:17	---	18:25	18:27	18:22
Applewood Estate	**16:23**	**17:03**	**17:08**	**17:09**	**17:23**	**17:23**	**---**	**17:43**	**17:38**	**17:53**	**---**	**18:03**	**18:08**	**18:03**	**---**	**18:18**	**---**	**18:26**	**18:28**	**18:23**
Miller's Glen	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Swords Educate Together	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Laurelton	16:24	17:04	17:09	17:10	17:24	17:24	---	17:44	17:39	17:54	---	18:04	18:09	18:04	---	18:19	---	18:27	18:29	18:24
Cianlea	**16:24**	**17:04**	**17:09**	**17:10**	**17:24**	**17:24**	**---**	**17:44**	**17:39**	**17:54**	**---**	**18:04**	**18:09**	**18:04**	**---**	**18:19**	**---**	**18:27**	**18:29**	**18:24**
Ardcian	16:25	17:05	17:10	17:11	17:25	17:25	---	17:45	17:40	17:55	---	18:05	18:10	18:05	---	18:20	---	18:28	18:30	18:25
Lios Cian	**16:26**	**17:06**	**17:11**	**17:12**	**17:26**	**17:26**	**---**	**17:46**	**17:41**	**17:56**	**---**	**18:06**	**18:11**	**18:06**	**---**	**18:21**	**---**	**18:29**	**18:31**	**18:26**
Valley View	16:26	17:06	17:11	17:12	17:26	17:26	---	17:46	17:41	17:56	---	18:06	18:11	18:06	---	18:21	---	18:29	18:31	18:26
Saint Cronan's Sout	**16:27**	**17:07**	**17:12**	**17:13**	**17:27**	**17:27**	**---**	**17:47**	**17:42**	**17:57**	**---**	**18:07**	**18:12**	**18:07**	**---**	**18:22**	**---**	**18:30**	**18:32**	**18:27**
Swords Manor	16:28	17:08	17:13	17:14	17:28	17:28	---	17:48	17:43	17:58	---	18:08	18:13	18:08	---	18:23	---	18:31	18:33	18:28

CITY TO SWORDS | MON -FRI TIMETABLE

SWORDS EXPRESS

	500	500	500	503	500	505X	500X	506	500	500	500	500	500	505X	500	500	500	500	500	500
Merrion Square	---	---	---	17:50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Eden Quay	**17:50**	**17:55**	**18:00**	**---**	**18:05**	**18:10**	**18:15**	**18:20**	**18:20**	**18:25**	**18:30**	**18:45**	**18:50**	**19:00**	**19:15**	**19:30**	**19:45**	**20:15**	**20:45**	**21:45**
IFSC	17:52	17:57	18:02	18:05	18:07	18:12	18:17	18:22	18:22	18:27	18:32	18:47	18:52	19:02	19:17	19:32	19:47	20:17	20:47	21:47
Custom House Quay (Jury's)	**17:54**	**17:59**	**18:04**	**18:07**	**18:09**	**18:14**	**18:19**	**18:24**	**18:24**	**18:29**	**18:34**	**18:49**	**18:54**	**19:04**	**19:18**	**19:33**	**19:48**	**20:18**	**20:48**	**21:48**
Custom House Quay (Clarion)	17:56	18:01	18:06	18:09	18:11	18:16	18:21	18:26	18:26	18:31	18:36	18:51	18:56	19:06	19:19	19:34	19:49	20:19	20:49	21:49
North Wall Quay	**17:58**	**18:03**	**18:08**	**18:11**	**18:13**	**18:18**	**18:23**	**18:28**	**18:28**	**18:33**	**18:38**	**18:53**	**18:58**	**19:08**	**19:20**	**19:35**	**19:50**	**20:20**	**20:50**	**21:50**
Point Depot (North Wall Quay)	17:59	18:04	18:09	18:12	18:14	18:19	18:24	18:29	18:29	18:34	18:39	18:54	18:59	19:09	19:21	19:36	19:51	20:21	20:51	21:51
Point Depot (East Wall Road)	**18:00**	**18:05**	**18:10**	**18:13**	**18:15**	**18:20**	**18:25**	**18:30**	**18:30**	**18:35**	**18:40**	**18:55**	**19:00**	**19:10**	**19:22**	**19:37**	**19:52**	**20:22**	**20:52**	**21:52**
Airport r/about	---	---	---	---	---	18:31	---	---	---	---	---	---	---	19:21	---	---	---	---	---	---
N1 Business Park	**---**	**---**	**---**	**---**	**---**	**18:33**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**19:23**	**---**	**---**	**---**	**---**	**---**	**---**
Swords Bypass	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pinnock Hill r/about	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Pinnock Hill after Travel Lodge	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Holywell Distributor Road	**18:17**	**18:22**	**18:27**	**18:30**	**18:32**	**---**	**18:42**	**18:47**	**18:47**	**18:52**	**18:57**	**19:12**	**19:17**	**---**	**19:37**	**19:52**	**20:07**	**20:37**	**21:07**	**22:07**
Holywell Square	---	---	---	---	---	---	---	18:48	---	---	---	---	---	---	---	---	---	---	---	---
Mountgorry Way	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**18:49**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Seamount View Est	---	---	---	---	---	---	---	18:50	---	---	---	---	---	---	---	---	---	---	---	---
Malahide Rd (Foxwood Est)	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**18:51**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Airside Central	18:19	18:24	18:26	18:26	18:34	---	---	---	18:49	18:54	18:59	19:14	19:19	---	19:38	19:53	20:08	20:38	21:08	22:08
Boroimhe Maples	**18:20**	**18:25**	**18:27**	**18:27**	**18:35**	**18:34**	**---**	**---**	**18:50**	**18:55**	**19:00**	**19:15**	**19:20**	**19:24**	**19:39**	**19:54**	**20:09**	**20:39**	**21:09**	**22:09**
Boroimhe Laurels	18:21	18:26	18:28	18:28	18:36	18:35	---	---	18:51	18:56	19:01	19:16	19:21	19:25	19:40	19:55	20:10	20:40	21:10	22:10
Rathingle Road	**---**	**---**	**---**	**---**	**---**	**18:36**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**19:26**	**---**	**---**	**---**	**---**	**---**	**---**
Cherry Avenue	---	---	---	---	---	18:37	---	---	---	---	---	---	---	19:27	---	---	---	---	---	---
Rathingle, Forest View	**---**	**---**	**---**	**---**	**---**	**18:37**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**19:27**	**---**	**---**	**---**	**---**	**---**	**---**
Cherry Garth Estate	---	---	---	---	---	18:38	---	---	---	---	---	---	---	19:28	---	---	---	---	---	---
River Valley Heights	**---**	**---**	**---**	**---**	**---**	**18:38**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**19:28**	**---**	**---**	**---**	**---**	**---**	**---**
River Valley Lawn	---	---	---	---	---	18:39	---	---	---	---	---	---	---	19:29	---	---	---	---	---	---
Ballintrane	**18:22**	**18:27**	**18:29**	**18:29**	**18:37**	**18:39**	**---**	**---**	**18:52**	**18:57**	**19:02**	**19:17**	**19:22**	**19:29**	**19:41**	**19:56**	**20:11**	**20:41**	**21:11**	**22:11**
Highfields	18:23	18:28	18:30	18:30	18:38	18:40	---	---	18:53	18:58	19:03	19:18	19:23	19:30	19:42	19:57	20:12	20:42	21:12	22:12
Dublin Road (opp Penneys)	**18:25**	**18:30**	**18:32**	**18:32**	**18:40**	**18:41**	**---**	**---**	**18:55**	**19:00**	**19:05**	**19:20**	**19:25**	**19:31**	**19:43**	**19:58**	**20:13**	**20:43**	**21:13**	**22:13**
Malahide Roundabout	18:27	18:32	18:34	18:34	18:42	18:42	---	---	18:57	19:02	19:07	19:22	19:27	19:32	19:44	19:59	20:14	20:44	21:14	22:14
Seatown Road	**18:31**	**18:36**	**18:38**	**18:38**	**18:46**	**---**	**18:46**	**18:52**	**19:01**	**19:06**	**19:11**	**19:26**	**19:31**	**---**	**19:46**	**20:01**	**20:16**	**20:46**	**21:16**	**22:16**
West Seatown	18:33	18:38	18:40	18:40	18:48	---	18:48	18:54	19:03	19:08	19:13	19:28	19:33	---	19:48	20:03	20:18	20:48	21:18	22:18
Saint Colmcille's GFC	**18:36**	**18:41**	**18:43**	**18:43**	**18:51**	**---**	**18:51**	**18:57**	**19:06**	**19:11**	**19:16**	**19:31**	**19:36**	**---**	**19:51**	**20:06**	**20:21**	**20:51**	**21:21**	**22:21**
Jugback Lane	18:37	18:42	18:44	18:44	18:52	---	18:52	18:58	19:07	19:12	19:17	19:32	19:37	---	19:52	20:07	20:22	20:52	21:22	22:22
Applewood Estate	**18:38**	**18:43**	**18:45**	**18:45**	**18:53**	**---**	**18:53**	**18:59**	**19:08**	**19:13**	**19:18**	**19:33**	**19:38**	**---**	**19:53**	**20:08**	**20:23**	**20:53**	**21:23**	**22:23**
Miller's Glen	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Swords Educate Together	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Laurelton	18:39	18:44	18:46	18:46	18:54	---	18:54	19:00	19:09	19:14	19:19	19:34	19:39	---	19:54	20:09	20:24	20:54	21:24	22:24
Cianlea	**18:39**	**18:44**	**18:46**	**18:46**	**18:54**	**---**	**18:54**	**19:00**	**19:09**	**19:14**	**19:19**	**19:34**	**19:39**	**---**	**19:54**	**20:09**	**20:24**	**20:54**	**21:24**	**22:24**
Ardcian	18:40	18:45	18:47	18:47	18:55	---	18:55	19:01	19:10	19:15	19:20	19:35	19:40	---	19:55	20:10	20:25	20:55	21:25	22:25
Lios Cian	**18:41**	**18:46**	**18:48**	**18:48**	**18:56**	**---**	**18:56**	**19:02**	**19:11**	**19:16**	**19:21**	**19:36**	**19:41**	**---**	**19:56**	**20:11**	**20:26**	**20:56**	**21:26**	**22:26**
Valley View	18:41	18:46	18:48	18:48	18:56	---	18:56	19:02	19:11	19:16	19:21	19:36	19:41	---	19:56	20:11	20:26	20:56	21:26	22:26
Saint Cronan's Sout	**18:42**	**18:47**	**18:49**	**18:49**	**18:57**	**---**	**18:57**	**19:03**	**19:12**	**19:17**	**19:22**	**19:37**	**19:42**	**---**	**19:57**	**20:12**	**20:27**	**20:57**	**21:27**	**22:27**
Swords Manor	18:43	18:48	18:50	18:50	18:58	---	18:58	19:04	19:13	19:18	19:23	19:38	19:43	---	19:58	20:13	20:28	20:58	21:28	22:28

CITY TO SWORDS | MON -FRI TIMETABLE

SWORDS EXPRESS

	500	500	500N*	500N*	*Thur/Fri Only
Merrion Square	---	---	---	---	
Eden Quay	**22:15**	**23:00**	**23:30**	**23:45**	
IFSC	22:17	23:02	23:32	23:47	
Custom House Quay (Jury's)	**22:18**	**23:03**	**23:33**	**23:48**	
Custom House Quay (Clarion)	22:19	23:04	23:34	23:49	
North Wall Quay	**22:20**	**23:05**	**23:35**	**23:50**	
Point Depot (North Wall Quay)	22:21	23:06	23:36	23:51	
Point Depot (East Wall Road)	**22:22**	**23:07**	**23:37**	**23:52**	
Airport r/about	---	---	---	---	
N1 Business Park	**---**	**---**	**---**	**---**	
Swords Bypass	---	---	---	---	
Pinnock Hill r/about	**---**	**---**	**---**	**---**	
Pinnock Hill after Travel Lodge	---	---	---	---	
Holywell Distributor Road	**22:37**	**23:22**	**23:52**	**00:07**	
Holywell Square	---	---	---	---	
Mountgorry Way	**---**	**---**	**---**	**---**	
Seamount View Est	---	---	---	---	
Malahide Rd (Foxwood Est)	**---**	**---**	**---**	**---**	
Airside Central	22:38	23:23	23:53	00:08	
Boroimhe Maples	**22:39**	**23:24**	**23:54**	**00:09**	
Boroimhe Laurels	22:40	23:25	23:55	00:10	
Rathingle Road	**---**	**---**	**---**	**---**	
Cherry Avenue	---	---	---	---	
Rathingle, Forest View	**---**	**---**	**---**	**---**	
Cherry Garth Estate	---	---	---	---	
River Valley Heights	**---**	**---**	**---**	**---**	
River Valley Lawn	---	---	---	---	
Ballintrane	**22:41**	**23:26**	**23:56**	**00:11**	
Highfields	22:42	23:27	23:57	00:12	
Dublin Road (opp Penneys)	**22:43**	**23:28**	**23:58**	**00:13**	
Malahide Roundabout	22:44	23:29	23:59	00:14	
Seatown Road	**22:46**	**23:31**	**00:01**	**00:16**	
West Seatown	22:48	23:33	00:03	00:18	
Saint Colmcille's GFC	**22:51**	**23:36**	**00:06**	**00:21**	
Jugback Lane	22:52	23:37	00:07	00:22	
Applewood Estate	**22:53**	**23:38**	**00:08**	**00:23**	
Miller's Glen	---	---	---	---	
Swords Educate Together	**---**	**---**	**---**	**---**	
Laurelton	22:54	23:39	00:09	00:24	
Cianlea	**22:54**	**23:39**	**00:09**	**00:24**	
Ardcian	22:55	23:40	00:10	00:25	
Lios Cian	**22:56**	**23:41**	**00:11**	**00:26**	
Valley View	22:56	23:41	00:11	00:26	
Saint Cronan's Sout	**22:57**	**23:42**	**00:12**	**00:27**	
Swords Manor	22:58	23:43	00:13	00:28	

SWORDS TO CITY | SAT TIMETABLE

SWORDS EXPRESS

	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Abbeyvale	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00
Swords Manor	**07:31**	**08:01**	**08:31**	**09:01**	**09:31**	**10:01**	**10:31**	**11:01**	**11:31**	**12:01**	**12:31**	**13:01**	**13:31**	**14:01**	**14:31**	**15:01**
Valley View	07:31	08:01	08:31	09:01	09:31	10:01	10:31	11:01	11:31	12:01	12:31	13:01	13:31	14:01	14:31	15:01
The Gallops	**07:31**	**08:01**	**08:31**	**09:01**	**09:31**	**10:01**	**10:31**	**11:01**	**11:31**	**12:01**	**12:31**	**13:01**	**13:31**	**14:01**	**14:31**	**15:01**
Lios Cian	07:32	08:02	08:32	09:02	09:32	10:02	10:32	11:02	11:32	12:02	12:32	13:02	13:32	14:02	14:32	15:02
Cianlea	**07:32**	**08:02**	**08:32**	**09:02**	**09:32**	**10:02**	**10:32**	**11:02**	**11:32**	**12:02**	**12:32**	**13:02**	**13:32**	**14:02**	**14:32**	**15:02**
Laurelton	07:33	08:03	08:33	09:03	09:33	10:03	10:33	11:03	11:33	12:03	12:33	13:03	13:33	14:03	14:33	15:03
Applewood Estate	**07:35**	**08:05**	**08:35**	**09:05**	**09:35**	**10:05**	**10:35**	**11:05**	**11:35**	**12:05**	**12:35**	**13:05**	**13:35**	**14:05**	**14:35**	**15:05**
Jugback Lane	07:36	08:06	08:36	09:06	09:36	10:06	10:36	11:06	11:36	12:06	12:36	13:06	13:36	14:06	14:36	15:06
Saint Colmcille's GFC	**07:37**	**08:07**	**08:37**	**09:07**	**09:37**	**10:07**	**10:37**	**11:07**	**11:37**	**12:07**	**12:37**	**13:07**	**13:37**	**14:07**	**14:37**	**15:07**
West Seatown	07:38	08:08	08:38	09:08	09:38	10:08	10:38	11:08	11:38	12:08	12:38	13:08	13:38	14:08	14:38	15:08
Seatown Road	**07:39**	**08:09**	**08:39**	**09:09**	**09:39**	**10:09**	**10:39**	**11:09**	**11:39**	**12:09**	**12:39**	**13:09**	**13:39**	**14:09**	**14:39**	**15:09**
Swords Bypass	07:40	08:10	08:40	09:10	09:40	10:10	10:40	11:10	11:40	12:10	12:40	13:10	13:40	14:10	14:40	15:10
Malahide Roundabout	**07:41**	**08:11**	**08:41**	**09:11**	**09:41**	**10:11**	**10:41**	**11:11**	**11:41**	**12:11**	**12:41**	**13:11**	**13:41**	**14:11**	**14:41**	**15:11**
Pavilions Shopping Centre	07:42	08:12	08:42	09:12	09:42	10:12	10:42	11:12	11:42	12:12	12:42	13:12	13:42	14:12	14:42	15:12
Dublin Road (Penneys)	**07:43**	**08:13**	**08:43**	**09:13**	**09:43**	**10:13**	**10:43**	**11:13**	**11:43**	**12:13**	**12:43**	**13:13**	**13:43**	**14:13**	**14:43**	**15:13**
Highfields	07:45	08:15	08:45	09:15	09:45	10:15	10:45	11:15	11:45	12:15	12:45	13:15	13:45	14:15	14:45	15:15
Ballintrane	**07:46**	**08:16**	**08:46**	**09:16**	**09:46**	**10:16**	**10:46**	**11:16**	**11:46**	**12:16**	**12:46**	**13:16**	**13:46**	**14:16**	**14:46**	**15:16**
Boroimhe Laurels	07:48	08:18	08:48	09:18	09:48	10:18	10:48	11:18	11:48	12:18	12:48	13:18	13:48	14:18	14:48	15:18
Boroimhe Maples	**07:49**	**08:19**	**08:49**	**09:19**	**09:49**	**10:19**	**10:49**	**11:19**	**11:49**	**12:19**	**12:49**	**13:19**	**13:49**	**14:19**	**14:49**	**15:19**
Airside Road	07:50	08:20	08:50	09:20	09:50	10:20	10:50	11:20	11:50	12:20	12:50	13:20	13:50	14:20	14:50	15:20
Airside Central	**07:51**	**08:21**	**08:51**	**09:21**	**09:51**	**10:21**	**10:51**	**11:21**	**11:51**	**12:21**	**12:51**	**13:21**	**13:51**	**14:21**	**14:51**	**15:21**
Holywell Distributor Road	07:52	08:22	08:52	09:22	09:52	10:22	10:52	11:22	11:52	12:22	12:52	13:22	13:52	14:22	14:52	15:22
M1 Drinan	**07:53**	**08:23**	**08:53**	**09:23**	**09:53**	**10:23**	**10:53**	**11:23**	**11:53**	**12:23**	**12:53**	**13:23**	**13:53**	**14:23**	**14:53**	**15:23**
East Wall Road	08:04	08:34	09:04	09:34	10:04	10:34	11:04	11:34	12:04	12:34	13:04	13:34	14:04	14:34	15:04	15:34
Convention Centre	**08:07**	**08:37**	**09:07**	**09:37**	**10:07**	**10:37**	**11:07**	**11:37**	**12:07**	**12:37**	**13:07**	**13:37**	**14:07**	**14:37**	**15:07**	**15:37**
Seán O'Casey Pedestrian Bridge	08:10	08:40	09:10	09:40	10:10	10:40	11:10	11:40	12:10	12:40	13:10	13:40	14:10	14:40	15:10	15:40
Eden Quay	**08:13**	**08:43**	**09:13**	**09:43**	**10:13**	**10:43**	**11:13**	**11:43**	**12:13**	**12:43**	**13:13**	**13:43**	**14:13**	**14:43**	**15:13**	**15:43**

SWORDS TO CITY | SAT TIMETABLE

SWORDS EXPRESS

	500	500	500	500	500	500	500	500	500	500	500	500	500N	500N
Abbeyvale	15:30	16:30	17:00	17:15	17:45	18:00	18:30	18:45	19:30	20:30	21:00	21:30	23:30	00:45
Swords Manor	**15:31**	**16:31**	**17:01**	**17:16**	**17:46**	**18:01**	**18:31**	**18:46**	**19:31**	**20:31**	**21:01**	**21:31**	**23:31**	**00:46**
Valley View	15:31	16:31	17:01	17:16	17:46	18:01	18:31	18:46	19:31	20:31	21:01	21:31	23:31	00:46
The Gallops	**15:31**	**16:31**	**17:01**	**17:16**	**17:46**	**18:01**	**18:31**	**18:46**	**19:31**	**20:31**	**21:01**	**21:31**	**23:31**	**00:46**
Lios Cian	15:32	16:32	17:02	17:17	17:47	18:02	18:32	18:47	19:32	20:32	21:02	21:32	23:32	00:47
Cianlea	**15:32**	**16:32**	**17:02**	**17:17**	**17:47**	**18:02**	**18:32**	**18:47**	**19:32**	**20:32**	**21:02**	**21:32**	**23:32**	**00:47**
Laurelton	15:33	16:33	17:03	17:18	17:48	18:03	18:33	18:48	19:33	20:33	21:03	21:33	23:33	00:48
Applewood Estate	**15:35**	**16:35**	**17:05**	**17:20**	**17:50**	**18:05**	**18:35**	**18:50**	**19:35**	**20:35**	**21:05**	**21:35**	**23:35**	**00:50**
Jugback Lane	15:36	16:36	17:06	17:21	17:51	18:06	18:36	18:51	19:36	20:36	21:06	21:36	23:36	00:51
Saint Colmcille's GFC	**15:37**	**16:37**	**17:07**	**17:22**	**17:52**	**18:07**	**18:37**	**18:52**	**19:37**	**20:37**	**21:07**	**21:37**	**23:37**	**00:52**
West Seatown	15:38	16:38	17:08	17:23	17:53	18:08	18:38	18:53	19:38	20:38	21:08	21:38	23:38	00:53
Seatown Road	**15:39**	**16:39**	**17:09**	**17:24**	**17:54**	**18:09**	**18:39**	**18:54**	**19:39**	**20:39**	**21:09**	**21:39**	**23:39**	**00:54**
Swords Bypass	15:40	16:40	17:10	17:25	17:55	18:10	18:40	18:55	19:40	20:40	21:10	21:40	23:40	00:55
Malahide Roundabout	**15:41**	**16:41**	**17:11**	**17:26**	**17:56**	**18:11**	**18:41**	**18:56**	**19:41**	**20:41**	**21:11**	**21:41**	**23:41**	**00:56**
Pavilions Shopping Centre	15:42	16:42	17:12	17:27	17:57	18:12	18:42	18:57	19:42	20:42	21:12	21:42	23:42	00:57
Dublin Road (Penneys)	**15:43**	**16:43**	**17:13**	**17:28**	**17:58**	**18:13**	**18:43**	**18:58**	**19:43**	**20:43**	**21:13**	**21:43**	**23:43**	**00:58**
Highfields	15:45	16:45	17:15	17:30	18:00	18:15	18:45	19:00	19:45	20:45	21:15	21:45	23:45	01:00
Ballintrane	**15:46**	**16:46**	**17:16**	**17:31**	**18:01**	**18:16**	**18:46**	**19:01**	**19:46**	**20:46**	**21:16**	**21:46**	**23:46**	**01:01**
Boroimhe Laurels	15:48	16:48	17:18	17:33	18:03	18:18	18:48	19:03	19:48	20:48	21:18	21:48	23:48	01:03
Boroimhe Maples	**15:49**	**16:49**	**17:19**	**17:34**	**18:04**	**18:19**	**18:49**	**19:04**	**19:49**	**20:49**	**21:19**	**21:49**	**23:49**	**01:04**
Airside Road	15:50	16:50	17:20	17:35	18:05	18:20	18:50	19:05	19:50	20:50	21:20	21:50	23:50	01:05
Airside Central	**15:51**	**16:51**	**17:21**	**17:36**	**18:06**	**18:21**	**18:51**	**19:06**	**19:51**	**20:51**	**21:21**	**21:51**	**23:51**	**01:06**
Holywell Distributor Road	15:52	16:52	17:22	17:37	18:07	18:22	18:52	19:07	19:52	20:52	21:22	21:52	23:52	01:07
M1 Drinan	**15:53**	**16:53**	**17:23**	**17:38**	**18:08**	**18:23**	**18:53**	**19:08**	**19:53**	**20:53**	**21:23**	**21:53**	**23:53**	**01:08**
East Wall Road	16:04	17:04	17:34	17:49	18:19	18:34	19:04	19:19	20:04	21:04	21:34	22:04	00:04	01:19
Convention Centre	**16:07**	**17:07**	**17:37**	**17:52**	**18:22**	**18:37**	**19:07**	**19:22**	**20:07**	**21:07**	**21:37**	**22:07**	**00:07**	**01:22**
Seán O'Casey Pedestrian Bridge	16:10	17:10	17:40	17:55	18:25	18:40	19:10	19:25	20:10	21:10	21:40	22:10	00:10	01:25
Eden Quay	**16:13**	**17:13**	**17:43**	**17:58**	**18:28**	**18:43**	**19:13**	**19:28**	**20:13**	**21:13**	**21:43**	**22:13**	**00:13**	**01:28**

CITY TO SWORDS | SAT TIMETABLE

SWORDS EXPRESS

	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Eden Quay	08:30	09:00	09:30	10:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00
IFSC	**08:31**	**09:01**	**09:31**	**10:01**	**11:31**	**12:01**	**12:31**	**13:01**	**13:31**	**14:01**	**14:31**	**15:01**	**15:31**	**16:01**
Custom House Quay (Jury's)	08:32	09:02	09:32	10:02	11:32	12:02	12:32	13:02	13:32	14:02	14:32	15:02	15:32	16:02
Custom House Quay (Clarion)	**08:33**	**09:03**	**09:33**	**10:03**	**11:33**	**12:03**	**12:33**	**13:03**	**13:33**	**14:03**	**14:33**	**15:03**	**15:33**	**16:03**
North Wall Quay	08:34	09:04	09:34	10:04	11:34	12:04	12:34	13:04	13:34	14:04	14:34	15:04	15:34	16:04
Point Depot (North Wall Quay)	**08:35**	**09:05**	**09:35**	**10:05**	**11:35**	**12:05**	**12:35**	**13:05**	**13:35**	**14:05**	**14:35**	**15:05**	**15:35**	**16:05**
Point Depot (East Wall Road)	08:36	09:06	09:36	10:06	11:36	12:06	12:36	13:06	13:36	14:06	14:36	15:06	15:36	16:06
Holywell Distributor Road	**08:47**	**09:17**	**09:47**	**10:17**	**11:47**	**12:17**	**12:47**	**13:17**	**13:47**	**14:17**	**14:47**	**15:17**	**15:47**	**16:17**
Airside Central	08:49	09:19	09:49	10:19	11:49	12:19	12:49	13:19	13:49	14:19	14:49	15:19	15:49	16:19
Boroimhe Maples	**08:51**	**09:21**	**09:51**	**10:21**	**11:51**	**12:21**	**12:51**	**13:21**	**13:51**	**14:21**	**14:51**	**15:21**	**15:51**	**16:21**
Boroimhe Laurels	08:52	09:22	09:52	10:22	11:52	12:22	12:52	13:22	13:52	14:22	14:52	15:22	15:52	16:22
Ballintrane	**08:53**	**09:23**	**09:53**	**10:23**	**11:53**	**12:23**	**12:53**	**13:23**	**13:53**	**14:23**	**14:53**	**15:23**	**15:53**	**16:23**
Highfields	08:54	09:24	09:54	10:24	11:54	12:24	12:54	13:24	13:54	14:24	14:54	15:24	15:54	16:24
Dublin Road (opp Penneys)	**08:56**	**09:26**	**09:56**	**10:26**	**11:56**	**12:26**	**12:56**	**13:26**	**13:56**	**14:26**	**14:56**	**15:26**	**15:56**	**16:26**
Malahide Roundabout	08:57	09:27	09:57	10:27	11:57	12:27	12:57	13:27	13:57	14:27	14:57	15:27	15:57	16:27
Seatown Road	**08:59**	**09:29**	**09:59**	**10:29**	**11:59**	**12:29**	**12:59**	**13:29**	**13:59**	**14:29**	**14:59**	**15:29**	**15:59**	**16:29**
West Seatown	09:01	09:31	10:01	10:31	12:01	12:31	13:01	13:31	14:01	14:31	15:01	15:31	16:01	16:31
Saint Colmcille's GFC	**09:04**	**09:34**	**10:04**	**10:34**	**12:04**	**12:34**	**13:04**	**13:34**	**14:04**	**14:34**	**15:04**	**15:34**	**16:04**	**16:34**
Jugback Lane	09:05	09:35	10:05	10:35	12:05	12:35	13:05	13:35	14:05	14:35	15:05	15:35	16:05	16:35
Applewood Estate	**09:06**	**09:36**	**10:06**	**10:36**	**12:06**	**12:36**	**13:06**	**13:36**	**14:06**	**14:36**	**15:06**	**15:36**	**16:06**	**16:36**
Laurelton	09:08	09:38	10:08	10:38	12:08	12:38	13:08	13:38	14:08	14:38	15:08	15:38	16:08	16:38
Cianlea	**09:09**	**09:39**	**10:09**	**10:39**	**12:09**	**12:39**	**13:09**	**13:39**	**14:09**	**14:39**	**15:09**	**15:39**	**16:09**	**16:39**
Ardcian	09:10	09:40	10:10	10:40	12:10	12:40	13:10	13:40	14:10	14:40	15:10	15:40	16:10	16:40
Lios Cian	**09:11**	**09:41**	**10:11**	**10:41**	**12:11**	**12:41**	**13:11**	**13:41**	**14:11**	**14:41**	**15:11**	**15:41**	**16:11**	**16:41**
Valley View	09:11	09:41	10:11	10:41	12:11	12:41	13:11	13:41	14:11	14:41	15:11	15:41	16:11	16:41
Saint Cronan's Sout	**09:12**	**09:42**	**10:12**	**10:42**	**12:12**	**12:42**	**13:12**	**13:42**	**14:12**	**14:42**	**15:12**	**15:42**	**16:12**	**16:42**
Swords Manor	09:13	09:43	10:13	10:43	12:13	12:43	13:13	13:43	14:13	14:43	15:13	15:43	16:13	16:43

CITY TO SWORDS | SAT TIMETABLE

SWORDS EXPRESS

	500	500	500	500	500	500	500	500	500	500N	500N
Eden Quay	16:30	18:00	18:30	19:30	20:00	20:30	22:00	22:30	23:00	00:30	01:30
IFSC	**16:31**	**18:01**	**18:31**	**19:31**	**20:01**	**20:31**	**22:01**	**22:31**	**23:01**	**00:31**	**01:31**
Custom House Quay (Jury's)	16:32	18:02	18:32	19:32	20:02	20:32	22:02	22:32	23:02	00:32	01:32
Custom House Quay (Clarion)	**16:33**	**18:03**	**18:33**	**19:33**	**20:03**	**20:33**	**22:03**	**22:33**	**23:03**	**00:33**	**01:33**
North Wall Quay	16:34	18:04	18:34	19:34	20:04	20:34	22:04	22:34	23:04	00:34	01:34
Point Depot (North Wall Quay)	**16:35**	**18:05**	**18:35**	**19:35**	**20:05**	**20:35**	**22:05**	**22:35**	**23:05**	**00:35**	**01:35**
Point Depot (East Wall Road)	16:36	18:06	18:36	19:36	20:06	20:36	22:06	22:36	23:06	00:36	01:36
Holywell Distributor Road	**16:47**	**18:17**	**18:47**	**19:47**	**20:17**	**20:47**	**22:17**	**22:47**	**23:17**	**00:47**	**01:47**
Airside Central	16:49	18:19	18:49	19:49	20:19	20:49	22:19	22:49	23:19	00:49	01:49
Boroimhe Maples	**16:51**	**18:21**	**18:51**	**19:51**	**20:21**	**20:51**	**22:21**	**22:51**	**23:21**	**00:51**	**01:51**
Boroimhe Laurels	16:52	18:22	18:52	19:52	20:22	20:52	22:22	22:52	23:22	00:52	01:52
Ballintrane	**16:53**	**18:23**	**18:53**	**19:53**	**20:23**	**20:53**	**22:23**	**22:53**	**23:23**	**00:53**	**01:53**
Highfields	16:54	18:24	18:54	19:54	20:24	20:54	22:24	22:54	23:24	00:54	01:54
Dublin Road (opp Penneys)	**16:56**	**18:26**	**18:56**	**19:56**	**20:26**	**20:56**	**22:26**	**22:56**	**23:26**	**00:56**	**01:56**
Malahide Roundabout	16:57	18:27	18:57	19:57	20:27	20:57	22:27	22:57	23:27	00:57	01:57
Seatown Road	**16:59**	**18:29**	**18:59**	**19:59**	**20:29**	**20:59**	**22:29**	**22:59**	**23:29**	**00:59**	**01:59**
West Seatown	17:01	18:31	19:01	20:01	20:31	21:01	22:31	23:01	23:31	01:01	02:01
Saint Colmcille's GFC	**17:04**	**18:34**	**19:04**	**20:04**	**20:34**	**21:04**	**22:34**	**23:04**	**23:34**	**01:04**	**02:04**
Jugback Lane	17:05	18:35	19:05	20:05	20:35	21:05	22:35	23:05	23:35	01:05	02:05
Applewood Estate	**17:06**	**18:36**	**19:06**	**20:06**	**20:36**	**21:06**	**22:36**	**23:06**	**23:36**	**01:06**	**02:06**
Laurelton	17:08	18:38	19:08	20:08	20:38	21:08	22:38	23:08	23:38	01:08	02:08
Cianlea	**17:09**	**18:39**	**19:09**	**20:09**	**20:39**	**21:09**	**22:39**	**23:09**	**23:39**	**01:09**	**02:09**
Ardcian	17:10	18:40	19:10	20:10	20:40	21:10	22:40	23:10	23:40	01:10	02:10
Lios Cian	**17:11**	**18:41**	**19:11**	**20:11**	**20:41**	**21:11**	**22:41**	**23:11**	**23:41**	**01:11**	**02:11**
Valley View	17:11	18:41	19:11	20:11	20:41	21:11	22:41	23:11	23:41	01:11	02:11
Saint Cronan's Sout	**17:12**	**18:42**	**19:12**	**20:12**	**20:42**	**21:12**	**22:42**	**23:12**	**23:42**	**01:12**	**02:12**
Swords Manor	17:13	18:43	19:13	20:13	20:43	21:13	22:43	23:13	23:43	01:13	02:13

SWORDS TO CITY | SUN TIMETABLE

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	500	500	500	500	500	500	500	500	500
Abbeyvale	08:45	09:45	10:45	11:45	12:45	13:45	14:45	15:45	18:45
Swords Manor	**08:46**	**09:46**	**10:46**	**11:46**	**12:46**	**13:46**	**14:46**	**15:46**	**18:46**
Valley View	08:46	09:46	10:46	11:46	12:46	13:46	14:46	15:46	18:46
The Gallops	**08:46**	**09:46**	**10:46**	**11:46**	**12:46**	**13:46**	**14:46**	**15:46**	**18:46**
Lios Cian	08:47	09:47	10:47	11:47	12:47	13:47	14:47	15:47	18:47
Cianlea	**08:47**	**09:47**	**10:47**	**11:47**	**12:47**	**13:47**	**14:47**	**15:47**	**18:47**
Laurelton	08:48	09:48	10:48	11:48	12:48	13:48	14:48	15:48	18:48
Applewood Estate	**08:50**	**09:50**	**10:50**	**11:50**	**12:50**	**13:50**	**14:50**	**15:50**	**18:50**
Jugback Lane	08:51	09:51	10:51	11:51	12:51	13:51	14:51	15:51	18:51
Saint Colmcille's GFC	**08:52**	**09:52**	**10:52**	**11:52**	**12:52**	**13:52**	**14:52**	**15:52**	**18:52**
West Seatown	08:53	09:53	10:53	11:53	12:53	13:53	14:53	15:53	18:53
Seatown Road	**08:54**	**09:54**	**10:54**	**11:54**	**12:54**	**13:54**	**14:54**	**15:54**	**18:54**
Swords Bypass	08:55	09:55	10:55	11:55	12:55	13:55	14:55	15:55	18:55
Malahide Roundabout	**08:56**	**09:56**	**10:56**	**11:56**	**12:56**	**13:56**	**14:56**	**15:56**	**18:56**
Pavilions Shopping Centre	08:57	09:57	10:57	11:57	12:57	13:57	14:57	15:57	18:57
Dublin Road (Penneys)	**08:58**	**09:58**	**10:58**	**11:58**	**12:58**	**13:58**	**14:58**	**15:58**	**18:58**
Highfields	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	19:00
Ballintrane	**09:01**	**10:01**	**11:01**	**12:01**	**13:01**	**14:01**	**15:01**	**16:01**	**19:01**
Boroimhe Laurels	09:03	10:03	11:03	12:03	13:03	14:03	15:03	16:03	19:03
Boroimhe Maples	**09:04**	**10:04**	**11:04**	**12:04**	**13:04**	**14:04**	**15:04**	**16:04**	**19:04**
Airside Road	09:05	10:05	11:05	12:05	13:05	14:05	15:05	16:05	19:05
Airside Central	**09:06**	**10:06**	**11:06**	**12:06**	**13:06**	**14:06**	**15:06**	**16:06**	**19:06**
Holywell Distributor Road	09:07	10:07	11:07	12:07	13:07	14:07	15:07	16:07	19:07
M1 Drinan	**09:08**	**10:08**	**11:08**	**12:08**	**13:08**	**14:08**	**15:08**	**16:08**	**19:08**
East Wall Road	09:19	10:19	11:19	12:19	13:19	14:19	15:19	16:19	19:19
Convention Centre	**09:22**	**10:22**	**11:22**	**12:22**	**13:22**	**14:22**	**15:22**	**16:22**	**19:22**
Seán O'Casey Pedestrian Bridge	09:25	10:25	11:25	12:25	13:25	14:25	15:25	16:25	19:25
Eden Quay	**09:28**	**10:28**	**11:28**	**12:28**	**13:28**	**14:28**	**15:28**	**16:28**	**19:28**

CITY TO SWORDS | SUN TIMETABLE

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	500	500	500	500	500	500	500	500	500	500
Eden Quay	09:45	10:45	12:45	13:45	14:45	16:45	17:45	18:45	19:45	20:45
IFSC	**09:46**	**10:46**	**12:46**	**13:46**	**14:46**	**16:46**	**17:46**	**18:46**	**19:46**	**20:46**
Custom House Quay (Jury's)	09:47	10:47	12:47	13:47	14:47	16:47	17:47	18:47	19:47	20:47
Custom House Quay (Clarion)	**09:48**	**10:48**	**12:48**	**13:48**	**14:48**	**16:48**	**17:48**	**18:48**	**19:48**	**20:48**
North Wall Quay	09:49	10:49	12:49	13:49	14:49	16:49	17:49	18:49	19:49	20:49
Point Depot (North Wall Quay)	**09:50**	**10:50**	**12:50**	**13:50**	**14:50**	**16:50**	**17:50**	**18:50**	**19:50**	**20:50**
Point Depot (East Wall Road)	09:51	10:51	12:51	13:51	14:51	16:51	17:51	18:51	19:51	20:51
Holywell Distributor Road	**10:02**	**11:02**	**13:02**	**14:02**	**15:02**	**17:02**	**18:02**	**19:02**	**20:02**	**21:02**
Airside Central	10:04	11:04	13:04	14:04	15:04	17:04	18:04	19:04	20:04	21:04
Boroimhe Maples	**10:06**	**11:06**	**13:06**	**14:06**	**15:06**	**17:06**	**18:06**	**19:06**	**20:06**	**21:06**
Boroimhe Laurels	10:07	11:07	13:07	14:07	15:07	17:07	18:07	19:07	20:07	21:07
Ballintrane	**10:08**	**11:08**	**13:08**	**14:08**	**15:08**	**17:08**	**18:08**	**19:08**	**20:08**	**21:08**
Highfields	10:09	11:09	13:09	14:09	15:09	17:09	18:09	19:09	20:09	21:09
Dublin Road (opp Penneys)	**10:11**	**11:11**	**13:11**	**14:11**	**15:11**	**17:11**	**18:11**	**19:11**	**20:11**	**21:11**
Malahide Roundabout	10:12	11:12	13:12	14:12	15:12	17:12	18:12	19:12	20:12	21:12
Seatown Road	**10:14**	**11:14**	**13:14**	**14:14**	**15:14**	**17:14**	**18:14**	**19:14**	**20:14**	**21:14**
West Seatown	10:16	11:16	13:16	14:16	15:16	17:16	18:16	19:16	20:16	21:16
Saint Colmcille's GFC	**10:19**	**11:19**	**13:19**	**14:19**	**15:19**	**17:19**	**18:19**	**19:19**	**20:19**	**21:19**
Jugback Lane	10:20	11:20	13:20	14:20	15:20	17:20	18:20	19:20	20:20	21:20
Applewood Estate	**10:21**	**11:21**	**13:21**	**14:21**	**15:21**	**17:21**	**18:21**	**19:21**	**20:21**	**21:21**
Laurelton	10:23	11:23	13:23	14:23	15:23	17:23	18:23	19:23	20:23	21:23
Cianlea	**10:24**	**11:24**	**13:24**	**14:24**	**15:24**	**17:24**	**18:24**	**19:24**	**20:24**	**21:24**
Ardcian	10:25	11:25	13:25	14:25	15:25	17:25	18:25	19:25	20:25	21:25
Lios Cian	**10:26**	**11:26**	**13:26**	**14:26**	**15:26**	**17:26**	**18:26**	**19:26**	**20:26**	**21:26**
Valley View	10:26	11:26	13:26	14:26	15:26	17:26	18:26	19:26	20:26	21:26
Saint Cronan's Sout	**10:27**	**11:27**	**13:27**	**14:27**	**15:27**	**17:27**	**18:27**	**19:27**	**20:27**	**21:27**
Swords Manor	10:28	11:28	13:28	14:28	15:28	17:28	18:28	19:28	20:28	21:28

B. South Fingal Transport Study Press Release

Comhairle Contae
Fhine Gall
Fingal County
Council

February 1, 2019

South Fingal Transport Study makes a number of key transport recommendations

Fingal County Council has published the South Fingal Transport Study (SFTS), a strategic land-use and transport study involving the development of a multi-modal transport strategy for the South Fingal area which includes areas such as Swords, Dublin Airport, Clonshaugh, Balgriffin and Baldoyle.

Among the key recommendations to be delivered within the study timeframe up to 2027 are the upgrade of the R132 Airport Roundabout, the provision of a Western Airport Access Route, the prioritisation of the Swords Core Bus Corridor and the construction of a high quality sustainable transport network to serve the expanding town of Swords.

In September 2017, Fingal County Council (FCC) commissioned Systra transport planning consultants to undertake the South Fingal Transport Study (SFTS).

Working with Systra, the Study included the identification of capacity constraints in the transport network across public transport, walking, cycling, and roads; an assessment of surface access issues within the study area including in and around Dublin Airport; and the development of a framework to inform future development including the numerous Local Area Plans and Masterplans proposed for the area.

The SFTS was presented to the Planning and Strategic Infrastructure and Transport Strategic Policy Committees today (Monday).

The study examined the transport network in South Fingal and makes recommendations of key transport infrastructure and outlines levels of land use development that will enable its sustainable growth leading up to the delivery of MetroLink and beyond.

It is an objective of the Fingal Development Plan 2017 -2023 that a comprehensive feasibility study of the South Fingal be carried out to produce a strategic vision and overall strategy for the proper planning and sustainable development of the area.

Fingal County Council's Director of Services for Planning & Strategic Infrastructure AnnMarie Farrelly said: "We are particularly pleased to publish this Study on the basis of having worked collaboratively with colleagues in the National Transport Authority, Transport Infrastructure Ireland and Dublin City Council to ensure a coordinated approach with respect to transport planning and land-use development and priorities.

"The challenge now for Fingal County Council will be to consider the recommendations in more detail, secure funding where required and bring the proposed schemes through the planning process in a timely manner, with the overall objective of ensuring the sustainable development of Fingal for future generations."

To see the full South Fingal Transport Study, visit https://bit.ly/2RqqUjj.

ENDS

For further information contact press@fingal.ie.

C. Census 2016 – Small Areas Data

Zone	Population	Trip Attractor	Car Driver	Car Passenger	Train	Bus	Bicycle	On Foot	Other or Not Stated	Total Trips
1	227	Work, School or College	35	16	1	30	8	45	27	162
			22	10	1	19	5	28	17	100
2	291		93	53	3	24	5	27	19	224
			42	24	1	11	2	12	8	100
3	237		74	40	1	18	3	18	23	177
			42	23	1	10	2	10	13	100
4	239		63	31	3	27	5	34	22	185
			34	17	2	15	3	18	12	100
5	296		105	36	3	21	8	25	23	221
			48	16	1	10	4	11	10	100
6	225		73	38	4	15	2	17	15	164
			45	23	2	9	1	10	9	100
7	242		105	21	2	35	1	8	5	177
			59	12	1	20	1	5	3	100
8	332		109	58	5	26	5	32	15	250
			44	23	2	10	2	13	6	100
9	382		128	60	3	40	4	36	29	300
			43	20	1	13	1	12	10	100
10	350		108	46	2	38	4	57	20	275
			39	17	1	14	1	21	7	100
11	435		110	64	4	56	5	53	25	317
			35	20	1	18	2	17	8	100
12	272		74	39	2	29	2	24	42	212
			35	18	1	14	1	11	20	100
13	252		65	43	1	43	2	24	34	212
			31	20	0	20	1	11	16	100
14	273		74	36	1	51	9	11	32	214
			35	17	0	24	4	5	15	100
15	282		81	30	0	38	2	34	27	212
			38	14	0	18	1	16	13	100
16	251		72	24	0	40	4	38	31	209
			34	11	0	19	2	38	15	100
17	461		129	74	4	88	5	37	25	362
			36	20	1	24	1	10	7	100
18	310		105	41	4	58	5	30	13	256
			41	16	2	23	2	12	5	100
19	321		112	32	4	47	4	38	25	262
			43	12	2	18	2	15	10	100
20	439		126	31	5	75	5	52	44	338
			37	9	1	22	1	15	13	100
21	200		58	14	0	25	1	33	18	149
			39	9	0	17	1	22	12	100
22	400		135	27	3	65	7	60	16	313
			43	9	1	21	2	19	5	100
23	313		101	38	1	64	3	35	24	266
			38	14	0	24	1	13	9	100
24	320		96	52	0	66	1	31	18	264
			36	20	0	25	0	12	7	100
25	256		74	29	0	53	2	25	10	193
			38	15	0	27	1	13	5	100
Total	7,606		2,305	973	56	1,072	102	824	582	5,914
			39	16	1	18	2	14	10	100

D. TRICS Trip Rates

Calculation Reference: AUDIT-561501-200817-0858

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BT	BRENT	2 days
	HV	HAVERING	1 days
	RD	RICHMOND	1 days
05	EAST MIDLANDS		
	NT	NOTTINGHAMSHIRE	1 days
08	NORTH WEST		
	MS	MERSEYSIDE	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 135 to 493 (units:)
Range Selected by User: 100 to 500 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 14/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	3 days
Wednesday	4 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	7

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Development Zone	3
Residential Zone	2
Built-Up Zone	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	5 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	3 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	3 days
1a (Low) Very poor	1 days
2 Poor	1 days
3 Moderate	1 days
5 Very Good	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BT-03-C-01 BLOCKS OF FLATS BRENT
LAKESIDE DRIVE
PARK ROYAL

Suburban Area (PPS6 Out of Centre)
Development Zone
Total No of Dwellings: 170
Survey date: WEDNESDAY *28/09/16* *Survey Type: MANUAL*

2 BT-03-C-02 BLOCKS OF FLATS BRENT
ENGINEERS WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total No of Dwellings: 472
Survey date: WEDNESDAY *30/11/16* *Survey Type: MANUAL*

3 DL-03-C-14 BLOCKS OF FLATS DUBLIN
BALLINTEER ROAD
DUBLIN
DUNDRUM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 140
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

4 HV-03-C-02 BLOCKS OF FLATS HAVERING
WATERLOO ROAD
ROMFORD

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total No of Dwellings: 493
Survey date: TUESDAY *22/11/16* *Survey Type: MANUAL*

5 MS-03-C-02 BLOCKS OF FLATS MERSEYSIDE
SOUTH FERRY QUAY
LIVERPOOL
BRUNSWICK DOCK
Suburban Area (PPS6 Out of Centre)
Development Zone
Total No of Dwellings: 184
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

6 NT-03-C-02 HOUSES (SPLIT INTO FLATS) NOTTINGHAMSHIRE
CASTLE MARINA ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 135
Survey date: WEDNESDAY *09/11/16* *Survey Type: MANUAL*

7 RD-03-C-04 BLOCKS OF FLATS RICHMOND
BESSANT DRIVE
KEW

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 170
Survey date: WEDNESDAY *15/05/19* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	252	0.028	7	252	0.088	7	252	0.116
08:00 - 09:00	7	252	0.026	7	252	0.105	7	252	0.131
09:00 - 10:00	7	252	0.037	7	252	0.046	7	252	0.083
10:00 - 11:00	7	252	0.031	7	252	0.040	7	252	0.071
11:00 - 12:00	7	252	0.027	7	252	0.039	7	252	0.066
12:00 - 13:00	7	252	0.032	7	252	0.043	7	252	0.075
13:00 - 14:00	7	252	0.040	7	252	0.048	7	252	0.088
14:00 - 15:00	7	252	0.040	7	252	0.037	7	252	0.077
15:00 - 16:00	7	252	0.053	7	252	0.036	7	252	0.089
16:00 - 17:00	7	252	0.069	7	252	0.035	7	252	0.104
17:00 - 18:00	7	252	0.087	7	252	0.040	7	252	0.127
18:00 - 19:00	7	252	0.096	7	252	0.053	7	252	0.149
19:00 - 20:00	3	271	0.062	3	271	0.042	3	271	0.104
20:00 - 21:00	3	271	0.044	3	271	0.028	3	271	0.072
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.672			0.680			1.352

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	135 - 493 (units:)
Survey date date range:	01/01/12 - 14/11/19
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-561501-200817-0833

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	2 days
	EX	ESSEX	1 days
	KC	KENT	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	2 days
05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
12	CONNAUGHT		
	LT	LEITRIM	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	CV	CAVAN	1 days
	DN	DONEGAL	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 80 to 138 (units:)
Range Selected by User: 80 to 140 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 10/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	1 days
Wednesday	1 days
Friday	5 days
Saturday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	10 days
Directional ATC Count	1 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	7

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	10
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories

Secondary Filtering selection:

Use Class:

C3	11 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	3 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	5 days
25,001 to 50,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	8 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	10 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	10 days
2 Poor	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CV-03-A-02 DETACHED & SEMI DETACHED CAVAN
R212 DUBLIN ROAD
CAVAN
KILLYNEBBER
Edge of Town
No Sub Category
Total No of Dwellings: 80
Survey date: MONDAY *22/05/17* *Survey Type: MANUAL*

2 DN-03-A-04 SEMI-DETACHED DONEGAL
GORTLEE ROAD
LETTERKENNY
GORTLEE
Edge of Town
Residential Zone
Total No of Dwellings: 83
Survey date: FRIDAY *26/09/14* *Survey Type: MANUAL*

3 DV-03-A-02 HOUSES & BUNGALOWS DEVON
MILLHEAD ROAD
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 116
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

4 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total No of Dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

5 ES-03-A-05 MIXED HOUSES & FLATS EAST SUSSEX
RATTLE ROAD
NEAR EASTBOURNE
STONE CROSS
Edge of Town
Residential Zone
Total No of Dwellings: 99
Survey date: WEDNESDAY *05/06/19* *Survey Type: MANUAL*

6 EX-03-A-02 DETACHED & SEMI-DETACHED ESSEX
MANOR ROAD
CHIGWELL
GRANGE HILL
Edge of Town
Residential Zone
Total No of Dwellings: 97
Survey date: MONDAY *27/11/17* *Survey Type: MANUAL*

7 KC-03-A-04 SEMI-DETACHED & TERRACED KENT
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total No of Dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

8 LT-03-A-01 SEMI-DETACHED & DETACHED LEITRIM
ARD NA SI
CARRICK-ON-SHANNON
ATTIRORY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 90
Survey date: FRIDAY *24/04/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	NF-03-A-02 DEREHAM ROAD NORWICH	HOUSES & FLATS		NORFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		98	
	Survey date: MONDAY		*22/10/12*	*Survey Type: MANUAL*
10	NF-03-A-16 NORWICH COMMON WYMONDHAM	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		138	
	Survey date: TUESDAY		*20/10/15*	*Survey Type: DIRECTIONAL ATC COUNT*
11	NR-03-A-01 BOUGHTON GREEN ROAD NORTHAMPTON KINGSTHORPE	HOUSES		NORTHAMPTONSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		102	
	Survey date: SATURDAY		*22/09/12*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	104	0.065	11	104	0.194	11	104	0.259
08:00 - 09:00	11	104	0.116	11	104	0.316	11	104	0.432
09:00 - 10:00	11	104	0.147	11	104	0.165	11	104	0.312
10:00 - 11:00	11	104	0.116	11	104	0.153	11	104	0.269
11:00 - 12:00	11	104	0.119	11	104	0.138	11	104	0.257
12:00 - 13:00	11	104	0.138	11	104	0.145	11	104	0.283
13:00 - 14:00	11	104	0.168	11	104	0.163	11	104	0.331
14:00 - 15:00	11	104	0.158	11	104	0.160	11	104	0.318
15:00 - 16:00	11	104	0.228	11	104	0.156	11	104	0.384
16:00 - 17:00	11	104	0.243	11	104	0.177	11	104	0.420
17:00 - 18:00	11	104	0.275	11	104	0.167	11	104	0.442
18:00 - 19:00	11	104	0.235	11	104	0.146	11	104	0.381
19:00 - 20:00	1	97	0.062	1	97	0.052	1	97	0.114
20:00 - 21:00	1	97	0.031	1	97	0.021	1	97	0.052
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.101			2.153			4.254

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	80 - 138 (units:)
Survey date date range:	01/01/12 - 10/09/19
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

E. Traffic Flow Diagrams

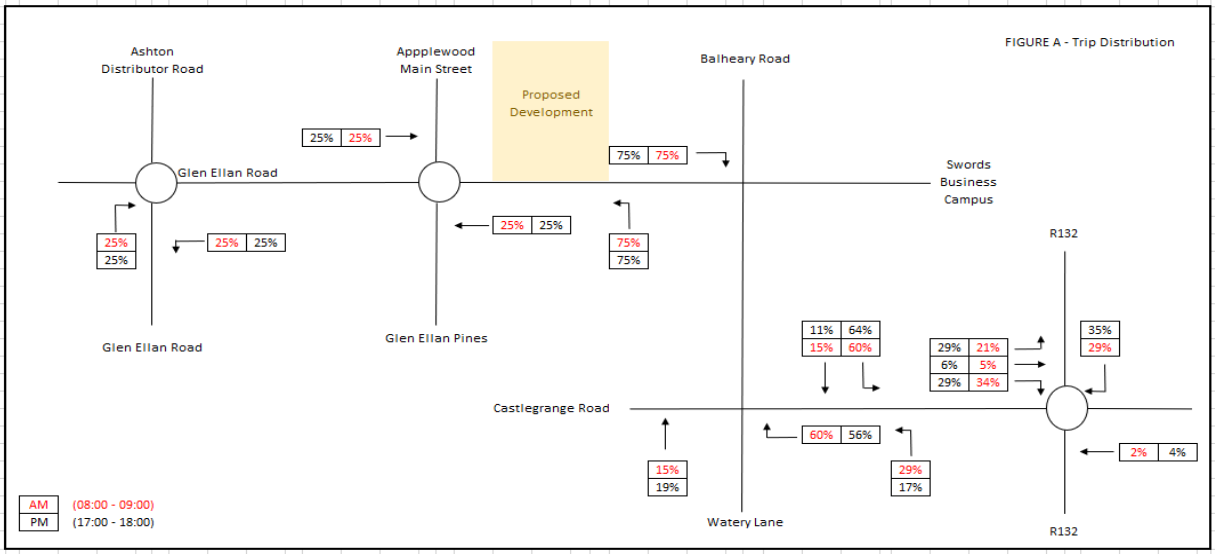


FIGURE A - Trip Distribution
Ashton
Distributor Road
Appplewood
Main Street
Proposed
Development
Balheary Road
Glen Ellan Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
Watery Lane
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

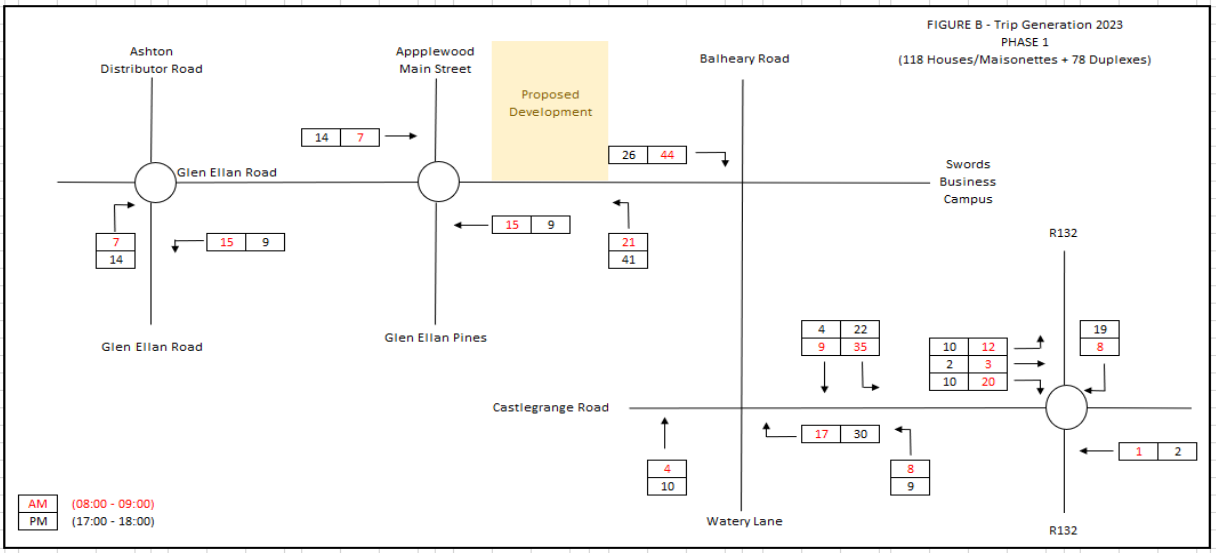


FIGURE B - Trip Generation 2023
PHASE 1
(118 Houses/Maisonettes + 78 Duplexes)
Ashton
Distributor Road
Appplewood
Main Street
Proposed
Development
Balheary Road
Glen Ellan Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
Watery Lane
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

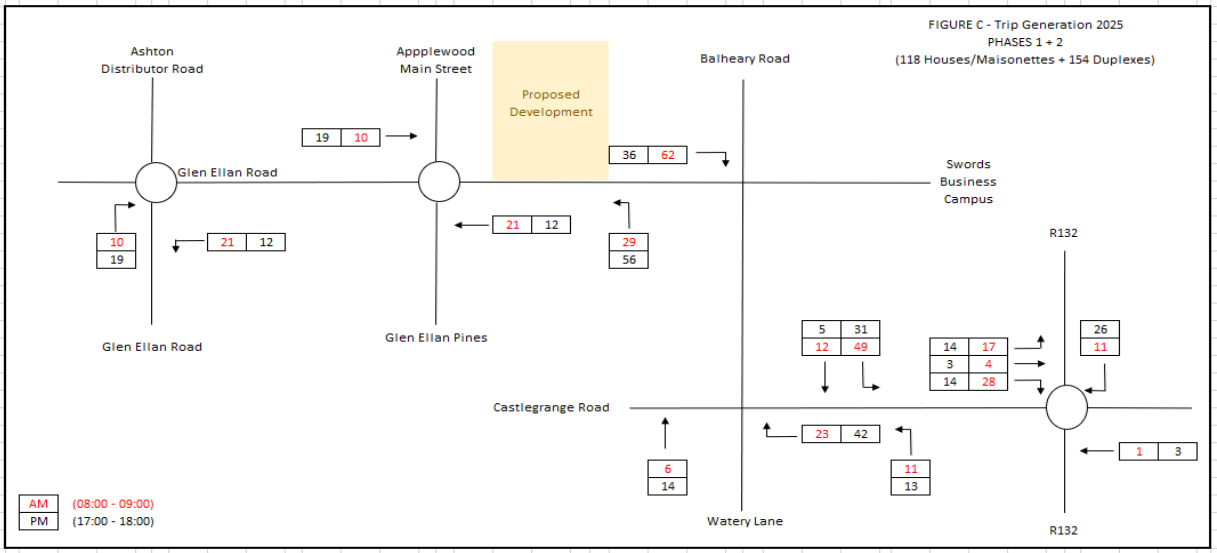


FIGURE C - Trip Generation 2025
PHASES 1 + 2
(118 Houses/Maisonettes + 154 Duplexes)
Ashton
Distributor Road
Appplewood
Main Street
Proposed
Development
Balheary Road
Glen Ellan Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
Watery Lane
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

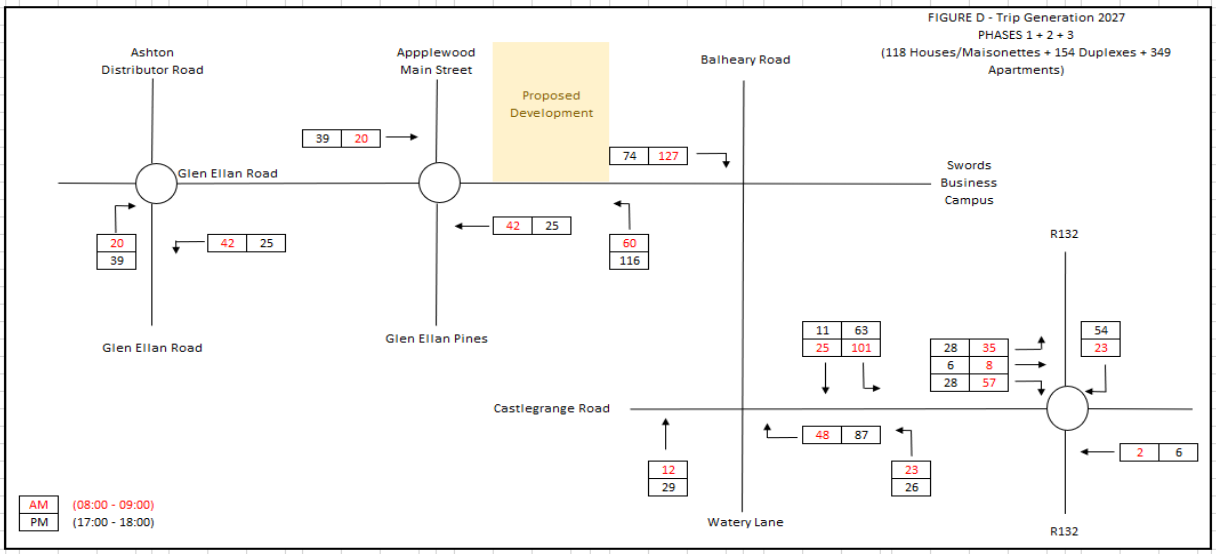


FIGURE D - Trip Generation 2027
PHASES 1 + 2 + 3
(118 Houses/Maisonettes + 154 Duplexes + 349 Apartments)
Ashton Distributor Road
Appplewood Main Street
Proposed Development
Balheary Road
Glen Ellan Road
Swords Business Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
Watery Lane
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

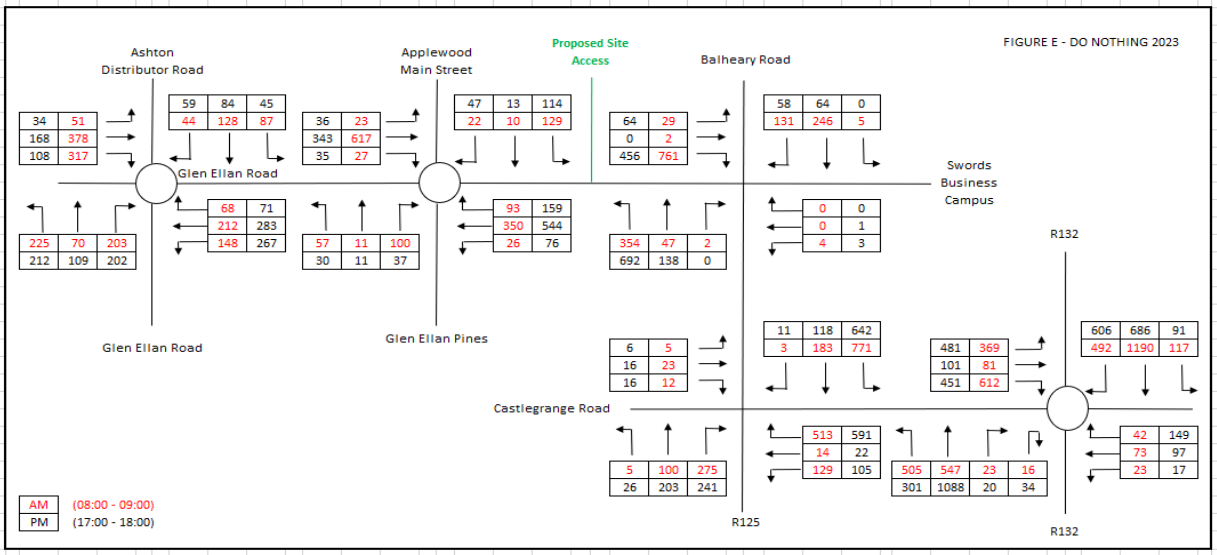


FIGURE E - DO NOTHING 2023
Ashton Distributor Road
Applewood Main Street
Proposed Site Access
Balheary Road
Glen Ellan Road
Swords Business Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

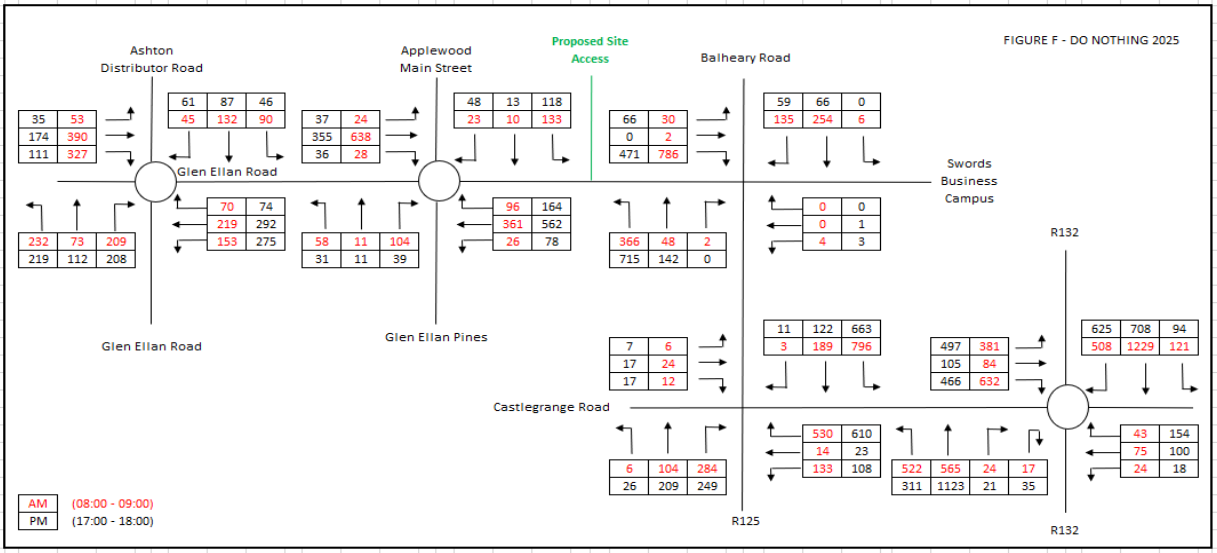


FIGURE F - DO NOTHING 2025
Ashton Distributor Road
Applewood Main Street
Proposed Site Access
Balheary Road
Glen Ellan Road
Swords Business Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

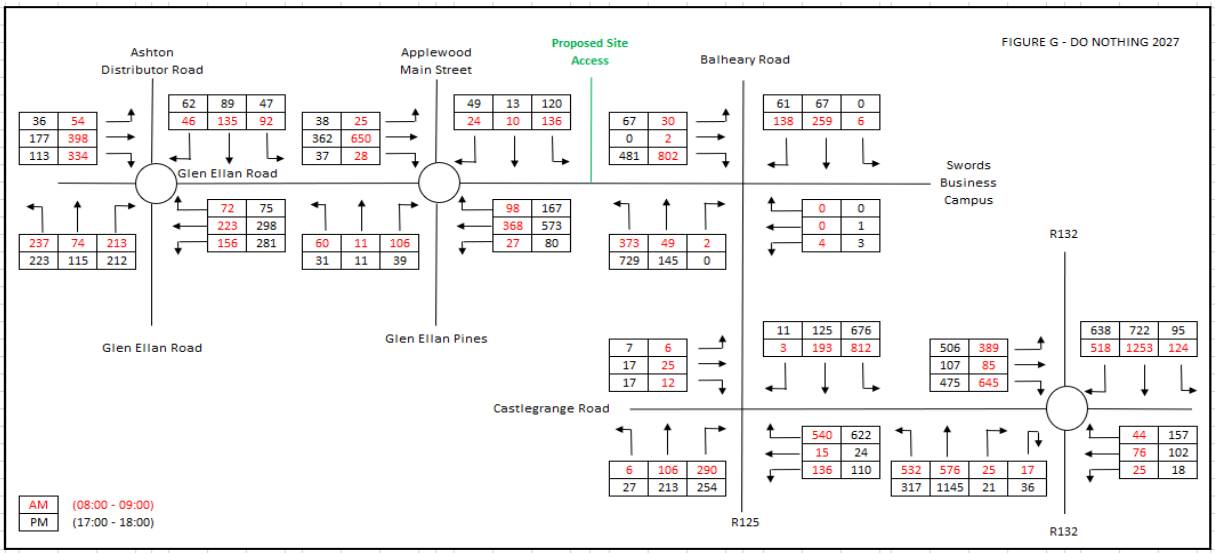


FIGURE G - DO NOTHING 2027
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Glen Ellan Road
Swords
Business
Campus
Glen Ellan Road
Glen Ellan Pines
R132
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

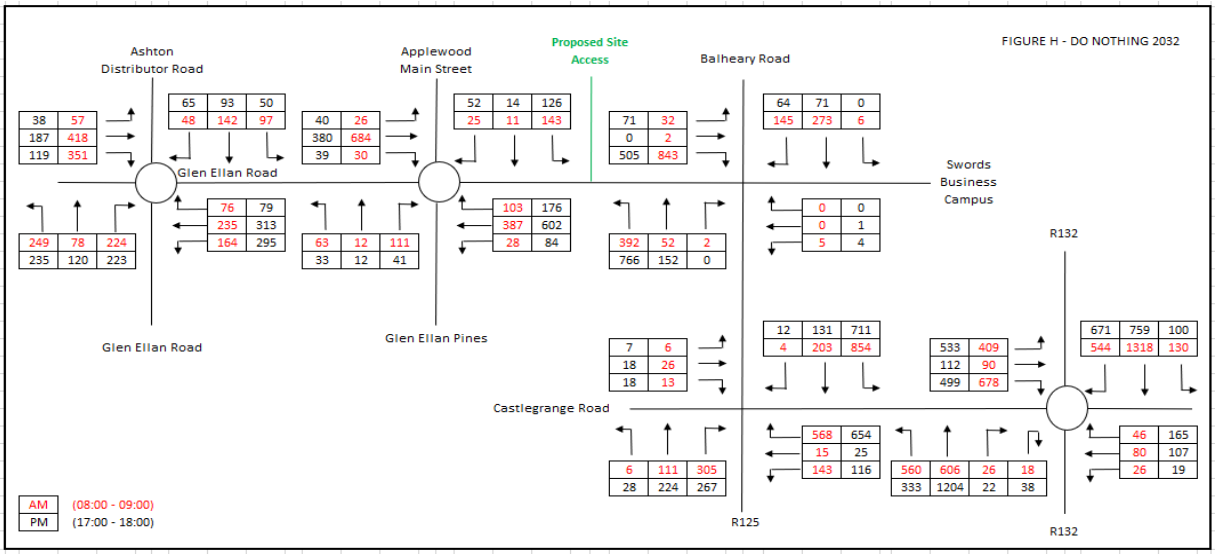


FIGURE H - DO NOTHING 2032
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Glen Ellan Road
Swords
Business
Campus
Glen Ellan Road
Glen Ellan Pines
R132
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

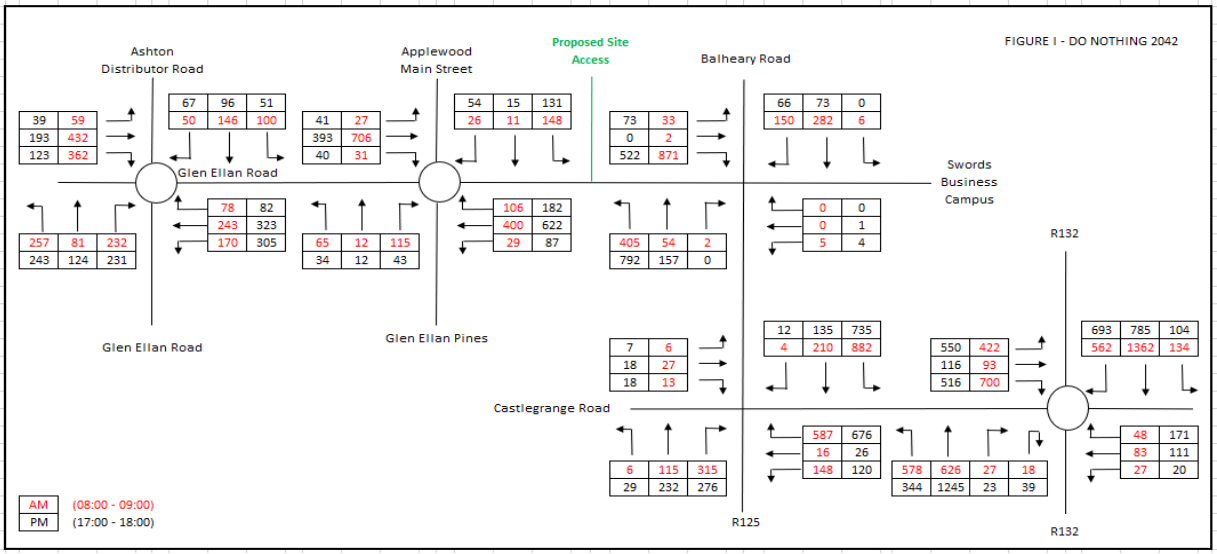


FIGURE I - DO NOTHING 2042
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Glen Ellan Road
Swords
Business
Campus
Glen Ellan Road
Glen Ellan Pines
R132
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

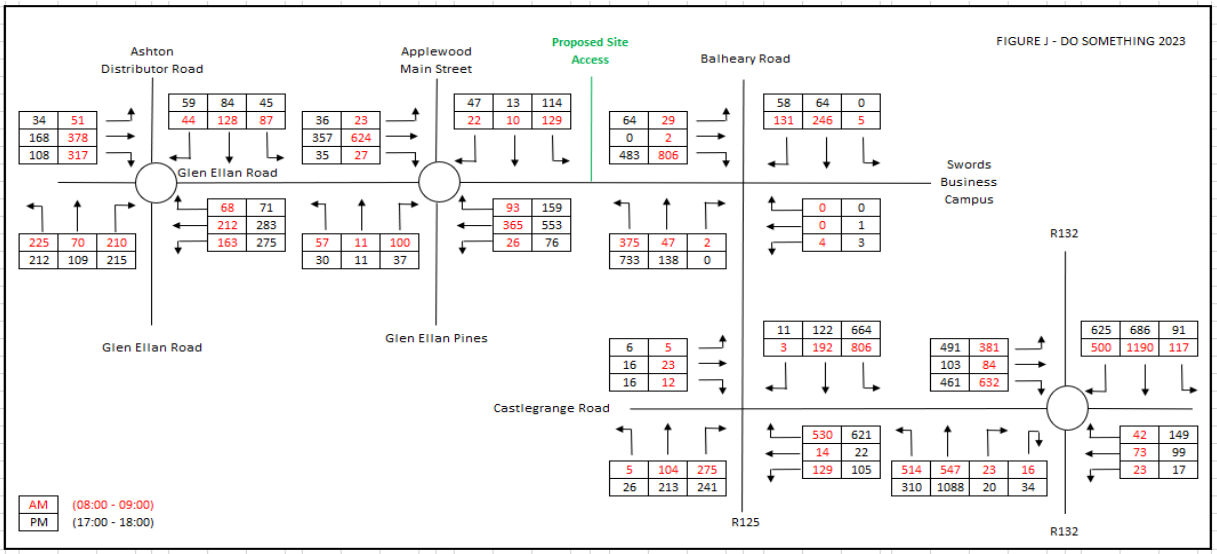


FIGURE J - DO SOMETHING 2023
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Glen Ellan Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

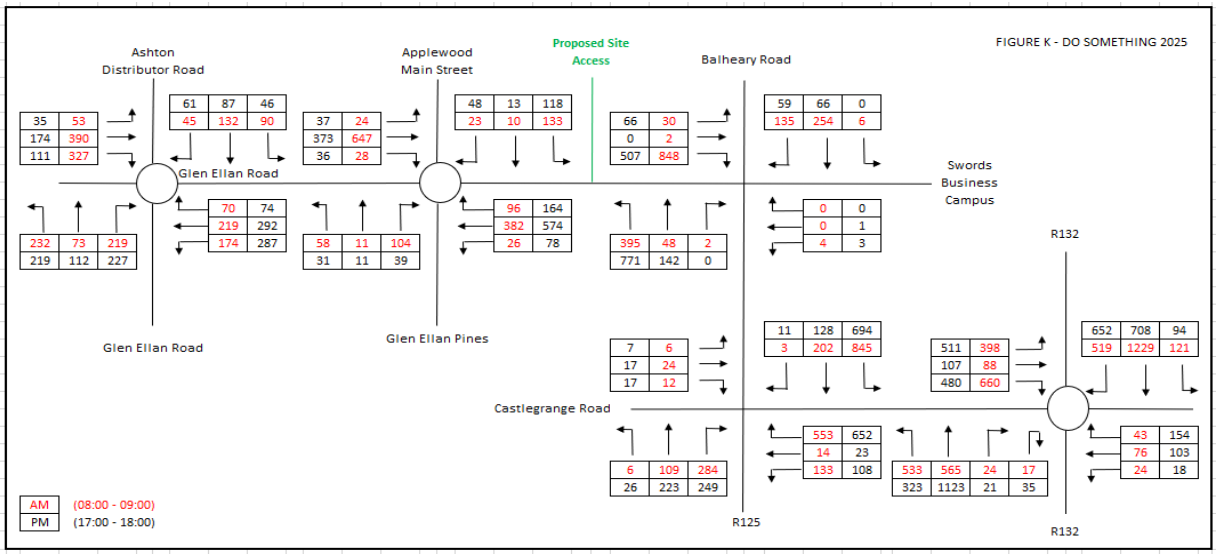


FIGURE K - DO SOMETHING 2025
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Glen Ellan Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

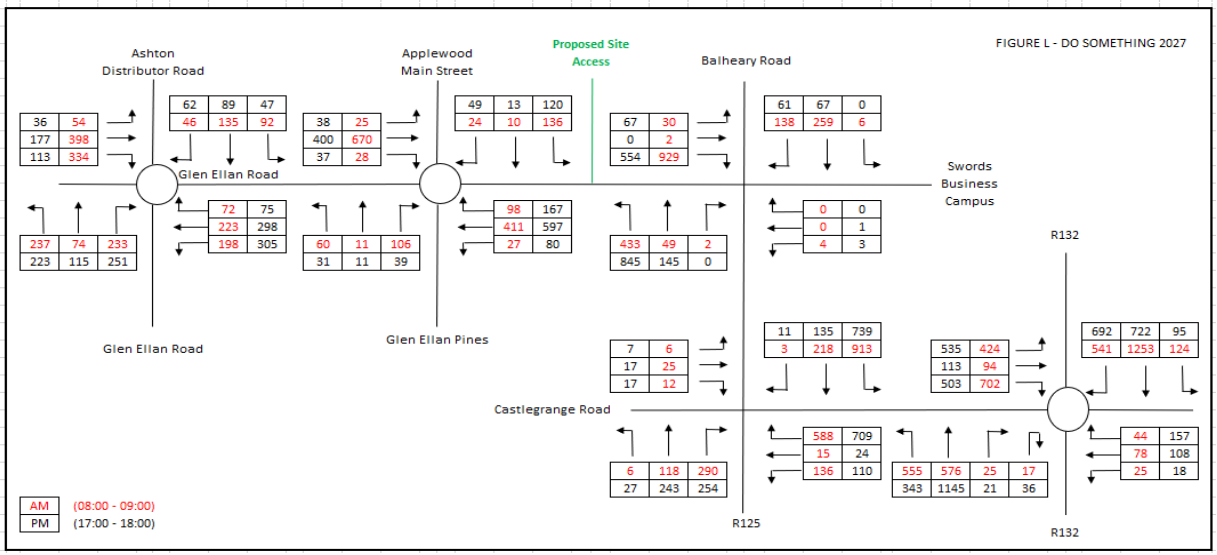


FIGURE L - DO SOMETHING 2027
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Glen Ellan Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

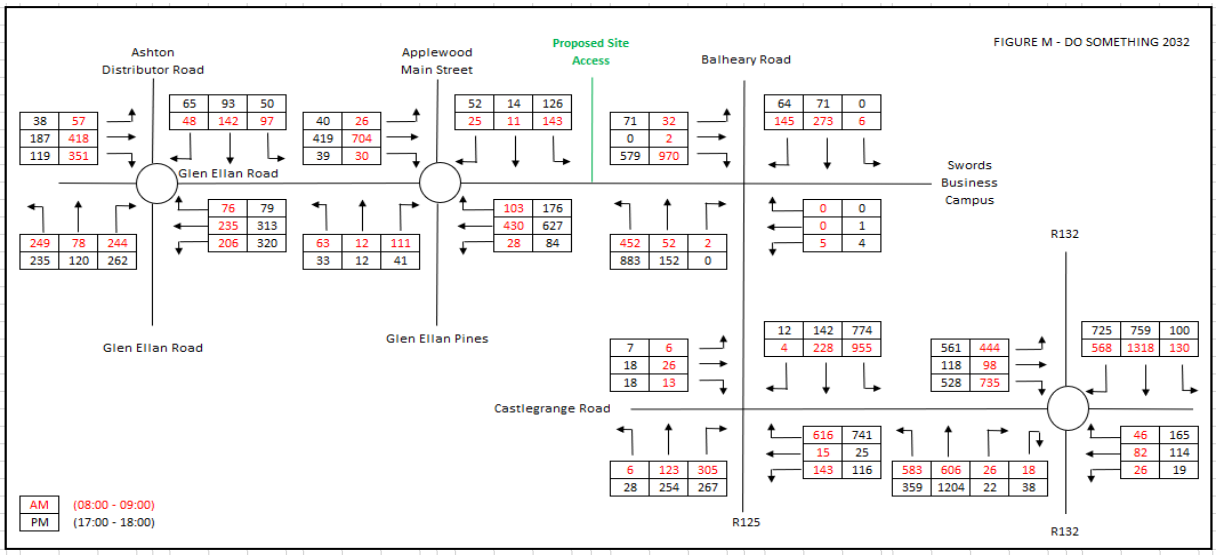


FIGURE M - DO SOMETHING 2032
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

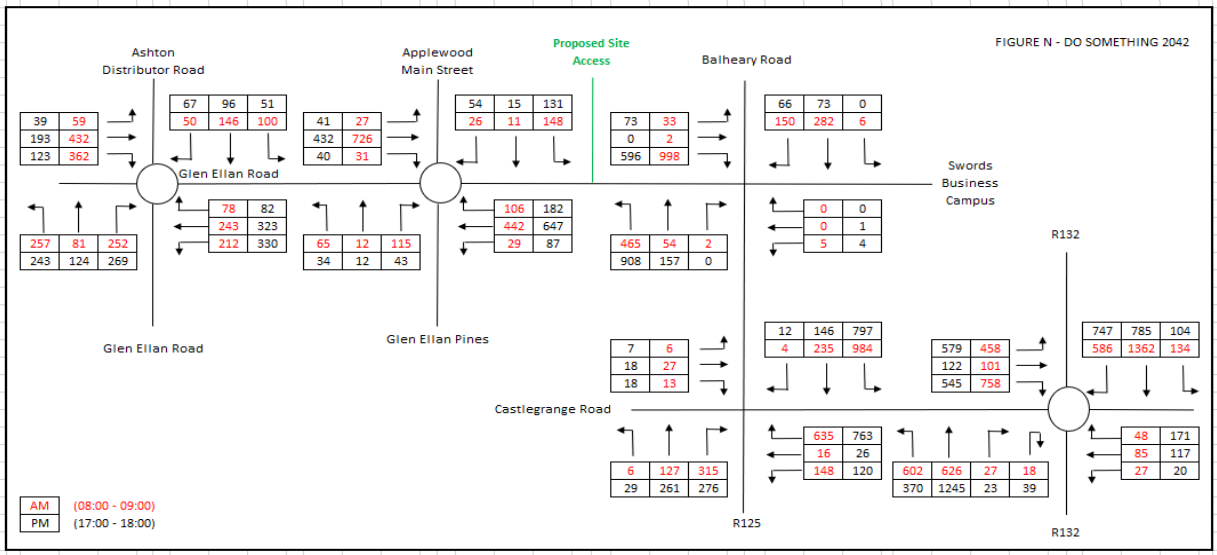


FIGURE N - DO SOMETHING 2042
Ashton
Distributor Road
Applewood
Main Street
Proposed Site
Access
Balheary Road
Swords
Business
Campus
R132
Glen Ellan Road
Glen Ellan Road
Glen Ellan Pines
Castlegrange Road
R125
R132
AM (08:00 - 09:00)
PM (17:00 - 18:00)

F. Junctions Assessment – Modelling Output Reports

TRANSYT 15

Version: 15.5.2.7994

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 3 - AM - Current Layout.t16
Path: \\wmfilesvr\Moylan\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 3\Current Layout
Report generation date: 24/03/2022 17:36:38

»A1 - 2019 SURVEYED FLOWS : D1 - 2019 SURVEYED FLOWS, * :
»A2 - 2023 DO NOTHING : D2 - 2023 DO NOTHING, * :
»A3 - 2023 DO SOMETHING : D3 - 2023 DO SOMETHING, * :
»A4 - 2025 DO NOTHING : D4 - 2025 DO NOTHING, * :
»A5 - 2025 DO SOMETHING : D5 - 2025 DO SOMETHING, * :

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

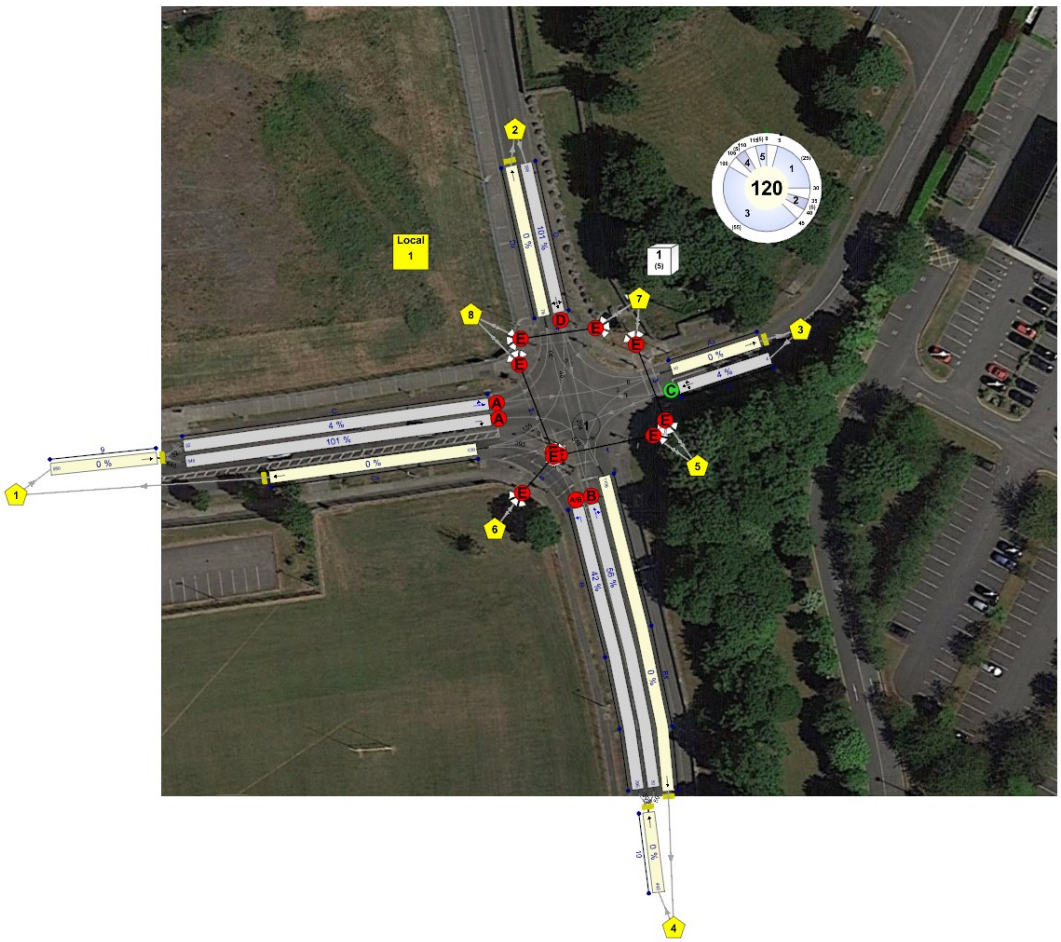
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



(untitled)
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2019 SURVEYED FLOWS
D1 - 2019 SURVEYED FLOWS, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:36:25	24/03/2022 17:36:25	08:00	120	422.84	28.54	92.05	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2019 SURVEYED FLOWS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2019 SURVEYED FLOWS,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.52						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	238.42						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	194.95						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.95						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	9	9
B	1	332	332
	2	46	46
Bx	1	949	949
C	1	29	29
	2	714	714
Cx	1	455	455
D	1	359	359
Dx	1	71	71
9	1	743	743
10	1	378	378

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.02	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.61	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.39	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.31	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.02	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.61	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.39	30.00	✓	Nearside	41.20
Dx	1	2	A/1	Dx/1	19.31	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.02	30.00	✓	Offside	56.10
Bx	1	3	C/2	Bx/1	28.61	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.39	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.31	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	27	2	714	0	0	0	0
	2	123	0	5	231	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	332	44	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	5
	6		2	4	D/1, Bx/1	Normal	231
	7		2	1	D/1, Cx/1	Normal	123
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	714
	43		1	2	9/1, C/1, Dx/1	Normal	27
	46		4	1	10/1, B/1, Cx/1	Normal	332
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	44

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	55	70	0	0	Traffic	
	B	(untitled)	5	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	25	30	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	60, 70, 80, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	5	60	55	1	55
	2	✓	2	B	65	70	5	1	5
	3	✓	3	C	75	80	5	1	5
	4	✓	4	D	85	110	25	1	25
	5	✓	5	E	115	0	5	1	5

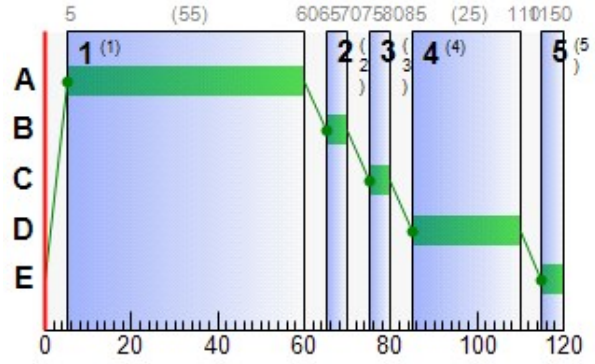
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	5	60	55
	B	1	✓	65	70	5
	C	1	✓	75	80	5
	D	1	✓	85	110	25
	E	1	✓	115	0	5

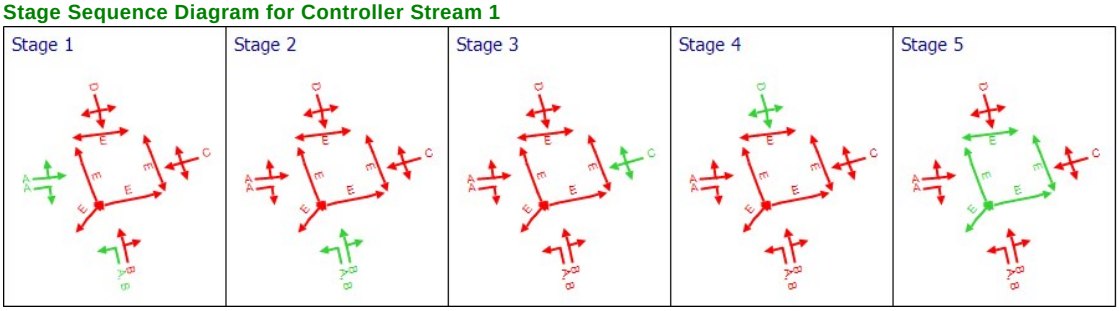
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	75	80	5
B	1	1	1	A	5	60	55
B	2	1	1	B	65	70	5
C	1	1	1	A	5	60	55
C	2	1	1	A	5	60	55
D	1	1	1	D	85	110	25

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36	180	332	1800	60	16.06	6.19	59.28	21.03	2.41	23.43
		2	51	96	46	1800	5	75.78	1.74	12.51	13.75	0.65	14.39
	Bx	1	0	Unrestricted	949	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	3	2797	29	1800	55	17.43	0.52	3.01	1.99	0.19	2.19
		2	85	18	714	1800	55	39.85	23.32	335.19	112.24	8.54	120.79
	Cx	1	0	Unrestricted	455	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	92	9	359	1800	25	86.50	15.71	30.11	122.50	5.73	128.22
	Dx	1	0	Unrestricted	71	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	743	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	378	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	120
	B	1	332	332	0		1800	930	36		180	0.00	60
		2	46	46	0		1800	90	51		96	0.00	5
	Bx	1	949	949	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	C	1	29	29	0		1800	840	3		2797	0.00	55
		2	714	714	0		1800	840	85		18	0.00	55
	Cx	1	455	455	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	359	359	0		1800	390	92		9	0.00	25
	Dx	1	71	71	0		Unrestricted	Unrestricted	0		Unrestricted	1.09	120
	9	1	743	743	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	378	378	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	16.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	16.06	1.38	0.10	21.03	57.80	185.99	5.91	2.41
		2	9.60	75.78	0.71	0.26	13.75	111.83	44.01	7.43	0.65
	Bx	1	28.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	17.43	0.14	0.00	1.99	53.08	15.38	0.02	0.19
		2	4.80	39.85	5.61	2.29	112.24	95.43	614.20	67.19	8.54
	Cx	1	23.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	86.50	4.59	4.04	122.50	127.25	345.32	111.52	5.73
	Dx	1	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.22	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	6.19	10.43	59.28	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.74	13.91	12.51	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	0.52	17.39	3.01	0.00	0.00	0.00	54.00	0.00	54.00	
		2	0.00	23.32	6.96	335.19	5.69	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.91	0.00	0.00	0.00	0.00	2.00	0.00	2.00	
	D	1	0.00	15.71	52.17	30.11	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.99	0.00	0.00	0.00	0.00	91.00	0.00	91.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	83.00	83.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	1.20	0.04	30.00	16.02
	B	1	19.92	2.14	9.29	23.26
		2	3.68	1.09	3.37	85.38
	Bx	1	226.26	7.54	30.00	28.61
	C	1	2.90	0.24	12.23	29.43
		2	28.56	8.86	3.22	44.65
	Cx	1	88.70	2.96	30.00	23.39
	D	1	107.70	12.22	8.82	122.50
	Dx	1	11.43	0.38	30.00	19.31
	9	1	40.04	1.33	30.00	6.47
	10	1	15.37	0.51	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	6.19	0.10	5.08	1.00	0.00	23.43
		2	0.00	0.00	✓	1.74	0.26	1.72	1.00	0.00	14.39
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	0.52	0.00	0.52	1.00	0.00	2.19
		2	0.00	0.00	✓	23.37	2.35	15.04	1.00	0.00	120.79
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	16.20	4.53	13.91	1.00	0.00	128.22
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:36:25	24/03/2022 17:36:25	08:00	120	422.84	28.54	92.05	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	92	0	4089	925	16.89	272.38	17.56	289.95

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4689	4689	0		92		9	975

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.06	21.91	21.85	6.69	405.28	29.87	1208.65	192.09	17.56

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	335.19	0.00	275.00	83.00	358.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	553.48	48.15	11.49

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	422.84

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.2	51.9	79.7	0.0	0.0	0.0	0.0
	2	145.9	0.0	138.5	151.1	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	51.5	109.6	106.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	5		138.53		5	138.53
6	2	4	231		151.11		231	151.11
7	2	1	123		145.90		123	145.90
8	3	2	0		0.00		0	0.00
9	3	4	4		93.76		4	93.76
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	2		51.92		2	51.92
20	1	4	714		79.73		714	79.73
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	27		55.22		27	55.22
46	4	1	332		51.53		332	51.53
47	4	3	2		106.28		2	106.28
48	4	2	44		109.57		44	109.57
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					9	Unrestricted	120	120.00	0	Unrestricted	16.02	0.00	0.00	
B	1	(untitled)	1	1	A	B	332	1800	60	0.00	36	180	23.26	16.06	57.80	
	2	(untitled)	1	1	B		46	1800	5	3.00	51	96	85.38	75.78	111.83	
Bx	1	(untitled)					949	Unrestricted	120	0.00	0	Unrestricted	28.61	0.00	0.00	
C	1	(untitled)	1	1	A		29	1800	55	54.00	3	2797	29.43	17.43	53.08	
	2	(untitled)	1	1	A		714 <	1800	55	0.00	85	18	44.65	39.85	95.43	
Cx	1	(untitled)					455	Unrestricted	120	2.00	0	Unrestricted	23.39	0.00	0.00	
D	1	(untitled)	1	1	D		359	1800	25	0.00	92	9	122.50	86.50	127.25	
Dx	1	(untitled)					71	Unrestricted	120	91.00	0	Unrestricted	19.31	0.00	0.00	
9	1	(untitled)	1				743	Unrestricted	120	83.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				378	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	546.08	37.38	14.61	12.49	6.69	272.38	17.56	0.00	289.95
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	553.48	48.15	11.49	21.85	6.69	405.28	17.56	0.00	422.84

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO NOTHING
D2 - 2023 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:36:26	24/03/2022 17:36:26	08:00	120	515.69	34.86	97.95	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO NOTHING		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.52						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	238.42						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	194.95						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.95						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	9	9
B	1	354	354
	2	49	49
Bx	1	1011	1011
C	1	31	31
	2	761	761
Cx	1	485	485
D	1	382	382
Dx	1	76	76
9	1	792	792
10	1	403	403

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.02	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.61	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.39	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.31	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.02	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.61	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.39	30.00	✓	Nearside	41.20
Dx	1	2	A/1	Dx/1	19.31	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.02	30.00	✓	Offside	56.10
Bx	1	3	C/2	Bx/1	28.61	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.39	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.31	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	29	2	761	0	0	0	0
	2	131	0	5	246	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	354	47	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	5
	6		2	4	D/1, Bx/1	Normal	246
	7		2	1	D/1, Cx/1	Normal	131
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	761
	43		1	2	9/1, C/1, Dx/1	Normal	29
	46		4	1	10/1, B/1, Cx/1	Normal	354
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	47

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	55	70	0	0	Traffic	
	B	(untitled)	5	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	25	30	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	30, 40, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	30	25	1	25
	2	✓	2	E	35	40	5	1	5
	3	✓	3	A	45	100	55	1	55
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

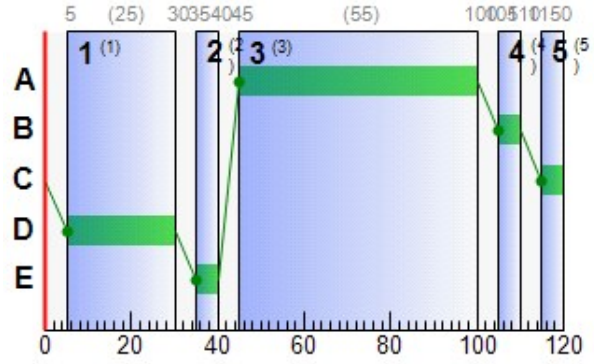
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	45	100	55
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	30	25
	E	1	✓	35	40	5

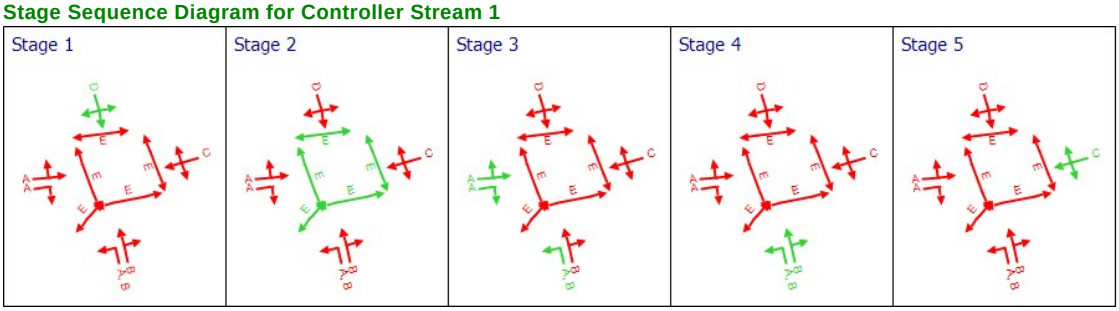
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	45	100	55
B	2	1	1	B	105	110	5
C	1	1	1	A	45	100	55
C	2	1	1	A	45	100	55
D	1	1	1	D	5	30	25

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	38	163	354	1800	60	16.40	6.71	64.26	22.90	2.61	25.51
		2	54	84	49	1800	5	78.64	1.90	13.69	15.20	0.70	15.90
	Bx	1	0	Unrestricted	1011	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4	2610	31	1800	55	17.47	0.56	3.22	2.14	0.21	2.34
		2	91	10	761	1800	55	47.98	27.14	390.20	144.01	9.99	154.00
	Cx	1	0	Unrestricted	485	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	98	2	382	1800	25	117.46	20.13	38.59	176.99	7.13	184.12
	Dx	1	0	Unrestricted	76	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	792	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	403	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.84	120
	B	1	354	354	0		1800	930	38		163	0.00	60
		2	49	49	0		1800	90	54		84	0.00	5
	Bx	1	1011	1011	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	31	31	0		1800	840	4		2610	0.00	55
		2	761	761	0		1800	840	91		10	0.00	55
	Cx	1	485	485	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	D	1	382	382	0		1800	390	98		2	0.00	25
	Dx	1	76	76	0		Unrestricted	Unrestricted	0		Unrestricted	1.09	120
	9	1	792	792	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	403	403	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	16.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	16.40	1.50	0.12	22.90	58.79	201.16	6.97	2.61
		2	9.60	78.64	0.76	0.31	15.20	114.73	47.28	8.94	0.70
	Bx	1	28.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	17.47	0.15	0.00	2.14	53.23	16.48	0.02	0.21
		2	4.80	47.98	6.25	3.89	144.01	104.72	684.57	112.38	9.99
	Cx	1	23.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	117.46	4.96	7.50	176.99	148.81	373.47	194.99	7.13
	Dx	1	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.22	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	6.71	10.43	64.26	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.90	13.91	13.69	0.00	0.00	0.00	2.00	0.00	2.00	
	Bx	1	0.00	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	0.56	17.39	3.22	0.00	0.00	0.00	54.00	0.00	54.00	
		2	0.00	27.14	6.96	390.20	8.12	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.91	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
	D	1	0.00	20.13	52.17	38.59	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.99	0.00	0.00	0.00	0.00	89.00	0.00	89.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	96.00	96.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	1.20	0.04	30.00	16.02
	B	1	21.24	2.32	9.15	23.60
		2	3.92	1.20	3.26	88.24
	Bx	1	241.04	8.03	30.00	28.61
	C	1	3.10	0.25	12.21	29.47
		2	30.44	11.16	2.73	52.78
	Cx	1	94.55	3.15	30.00	23.39
	D	1	114.60	16.28	7.04	153.46
	Dx	1	12.23	0.41	30.00	19.31
	9	1	42.68	1.42	30.00	6.47
	10	1	16.38	0.55	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	6.71	0.12	5.43	1.00	0.00	25.51
		2	0.00	0.00	✓	1.91	0.32	1.87	1.00	0.00	15.90
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	0.56	0.00	0.55	1.00	0.00	2.34
		2	0.00	0.00	✓	27.36	4.10	17.63	1.00	0.00	154.00
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	22.54	9.91	19.88	1.00	0.00	184.12
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:36:26	24/03/2022 17:36:26	08:00	120	515.69	34.86	97.95	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	98	0	4357	925	21.07	362.11	20.69	382.80

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4957	4957	0		98		2	975

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.10	25.32	23.03	11.83	495.00	33.29	1326.71	323.33	20.69

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	390.20	0.00	271.00	96.00	367.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	589.11	55.66	10.58

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	515.69

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.3	52.0	87.9	0.0	0.0	0.0	0.0
	2	176.9	0.0	169.5	182.1	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	51.9	112.4	109.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	5		169.48		5	169.48
6	2	4	246		182.07		246	182.07
7	2	1	131		176.86		131	176.86
8	3	2	0		0.00		0	0.00
9	3	4	4		93.76		4	93.76
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	2		51.96		2	51.96
20	1	4	761		87.85		761	87.85
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	29		55.25		29	55.25
46	4	1	354		51.87		354	51.87
47	4	3	2		109.14		2	109.14
48	4	2	47		112.43		47	112.43
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79
Ax	1	(untitled)					9	Unrestricted	120	120.00	0	Unrestricted	16.02	0.00	0.00
B	1	(untitled)	1	1	A	B	354	1800	60	0.00	38	163	23.60	16.40	58.79
	2	(untitled)	1	1	B		49	1800	5	2.00	54	84	88.24	78.64	114.73
Bx	1	(untitled)					1011	Unrestricted	120	0.00	0	Unrestricted	28.61	0.00	0.00
C	1	(untitled)	1	1	A		31	1800	55	54.00	4	2610	29.47	17.47	53.23
	2	(untitled)	1	1	A		761 <	1800	55	0.00	91	10	52.78	47.98	104.72
Cx	1	(untitled)					485	Unrestricted	120	1.00	0	Unrestricted	23.39	0.00	0.00
D	1	(untitled)	1	1	D		382	1800	25	0.00	98	2	153.46	117.46	148.81
Dx	1	(untitled)					76	Unrestricted	120	89.00	0	Unrestricted	19.31	0.00	0.00
9	1	(untitled)	1				792	Unrestricted	120	96.00	0	Unrestricted	6.47	0.00	0.00
10	1	(untitled)	1				403	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	581.71	44.89	12.96	13.67	11.83	362.11	20.69	0.00	382.80
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	589.11	55.66	10.58	23.03	11.83	495.00	20.69	0.00	515.69

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2023 DO SOMETHING
D3 - 2023 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:36:26	24/03/2022 17:36:27	08:00	120	581.73	39.34	97.95	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO SOMETHING		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.52						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	238.42						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	194.95						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.95						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	9	9
B	1	375	375
	2	49	49
Bx	1	1056	1056
C	1	31	31
	2	806	806
Cx	1	506	506
D	1	382	382
Dx	1	76	76
9	1	837	837
10	1	424	424

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.02	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.61	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.39	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.31	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.02	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.61	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.39	30.00	✓	Nearside	41.20
Dx	1	2	A/1	Dx/1	19.31	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.02	30.00	✓	Offside	56.10
Bx	1	3	C/2	Bx/1	28.61	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.39	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.31	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	29	2	806	0	0	0	0
	2	131	0	5	246	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	375	47	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	5
	6		2	4	D/1, Bx/1	Normal	246
	7		2	1	D/1, Cx/1	Normal	131
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	806
	43		1	2	9/1, C/1, Dx/1	Normal	29
	46		4	1	10/1, B/1, Cx/1	Normal	375
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	47

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	55	70	0	0	Traffic	
	B	(untitled)	5	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	25	30	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	30, 40, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	30	25	1	25
	2	✓	2	E	35	40	5	1	5
	3	✓	3	A	45	100	55	1	55
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

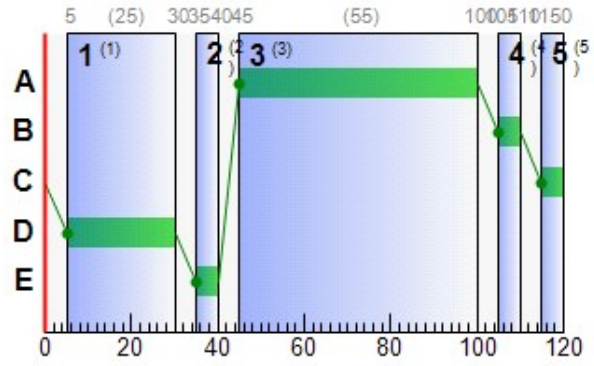
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	45	100	55
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	30	25
	E	1	✓	35	40	5

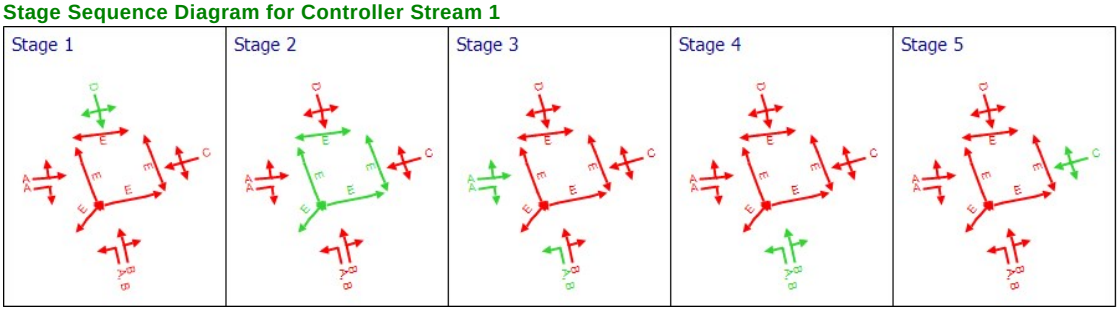
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	45	100	55
B	2	1	1	B	105	110	5
C	1	1	1	A	45	100	55
C	2	1	1	A	45	100	55
D	1	1	1	D	5	30	25

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	40	148	375	1800	60	16.74	7.22	69.18	24.76	2.81	27.58
		2	54	84	49	1800	5	78.64	1.90	13.69	15.20	0.70	15.90
	Bx	1	0	Unrestricted	1056	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4	2610	31	1800	55	17.47	0.56	3.22	2.14	0.21	2.34
		2	96	4	806	1800	55	64.74	33.32	479.00	205.82	12.16	217.98
	Cx	1	0	Unrestricted	506	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	98	2	382	1800	25	117.46	20.13	38.59	176.99	7.13	184.12
	Dx	1	0	Unrestricted	76	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	837	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	424	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.84	120
	B	1	375	375	0		1800	930	40		148	0.00	60
		2	49	49	0		1800	90	54		84	0.00	5
	Bx	1	1056	1056	0		Unrestricted	Unrestricted	0		Unrestricted	0.48	120
	C	1	31	31	0		1800	840	4		2610	0.00	55
		2	806	806	0		1800	840	96		4	0.00	55
	Cx	1	506	506	0		Unrestricted	Unrestricted	0		Unrestricted	0.48	120
	D	1	382	382	0		1800	390	98		2	0.00	25
	Dx	1	76	76	0		Unrestricted	Unrestricted	0		Unrestricted	1.09	120
	9	1	837	837	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	424	424	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	16.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	16.74	1.61	0.14	24.76	59.85	216.32	8.11	2.81
		2	9.60	78.64	0.76	0.31	15.20	114.73	47.28	8.94	0.70
	Bx	1	28.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	17.47	0.15	0.00	2.14	53.23	16.48	0.02	0.21
		2	4.80	64.74	6.92	7.57	205.82	120.33	757.92	211.95	12.16
	Cx	1	23.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	117.46	4.96	7.50	176.99	148.81	373.47	194.99	7.13
	Dx	1	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.22	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	7.22	10.43	69.18	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.90	13.91	13.69	0.00	0.00	0.00	2.00	0.00	2.00	
	Bx	1	0.00	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	0.56	17.39	3.22	0.00	0.00	0.00	54.00	0.00	54.00	
		2	0.00	33.32	6.96	479.00	13.06	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.91	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
	D	1	0.00	20.13	52.17	38.59	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.99	0.00	0.00	0.00	0.00	89.00	0.00	89.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	120.00	120.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	1.20	0.04	30.00	16.02
	B	1	22.50	2.49	9.02	23.94
		2	3.92	1.20	3.26	88.24
	Bx	1	251.77	8.39	30.00	28.61
	C	1	3.10	0.25	12.21	29.47
		2	32.24	15.57	2.07	69.54
	Cx	1	98.65	3.29	30.00	23.39
	D	1	114.60	16.28	7.04	153.46
	Dx	1	12.23	0.41	30.00	19.31
	9	1	45.10	1.50	30.00	6.47
	10	1	17.24	0.57	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	7.22	0.14	5.76	1.00	0.00	27.58
		2	0.00	0.00	✓	1.91	0.32	1.87	1.00	0.00	15.90
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	0.56	0.00	0.55	1.00	0.00	2.34
		2	0.00	0.00	✓	34.58	8.83	23.16	1.00	0.00	217.98
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	22.54	9.91	19.88	1.00	0.00	184.12
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:36:26	24/03/2022 17:36:27	08:00	120	581.73	39.34	97.95	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	98	0	4555	925	23.70	425.78	23.06	448.84

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5155	5155	0		98		2	975

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.02	27.48	23.81	15.53	558.67	35.68	1415.23	424.05	23.06

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	479.00	0.00	271.00	120.00	391.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	610.27	60.85	10.03

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	581.73

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.3	52.0	104.6	0.0	0.0	0.0	0.0
	2	176.9	0.0	169.5	182.1	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	52.2	112.4	109.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	5		169.48		5	169.48
6	2	4	246		182.07		246	182.07
7	2	1	131		176.86		131	176.86
8	3	2	0		0.00		0	0.00
9	3	4	4		93.76		4	93.76
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	2		51.96		2	51.96
20	1	4	806		104.61		806	104.61
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	29		55.25		29	55.25
46	4	1	375		52.21		375	52.21
47	4	3	2		109.14		2	109.14
48	4	2	47		112.43		47	112.43
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					9	Unrestricted	120	120.00	0	Unrestricted	16.02	0.00	0.00	
B	1	(untitled)	1	1	A	B	375	1800	60	0.00	40	148	23.94	16.74	59.85	
	2	(untitled)	1	1	B		49	1800	5	2.00	54	84	88.24	78.64	114.73	
Bx	1	(untitled)					1056	Unrestricted	120	0.00	0	Unrestricted	28.61	0.00	0.00	
C	1	(untitled)	1	1	A		31	1800	55	54.00	4	2610	29.47	17.47	53.23	
	2	(untitled)	1	1	A		806 <	1800	55	0.00	96	4	69.54	64.74	120.33	
Cx	1	(untitled)					506	Unrestricted	120	1.00	0	Unrestricted	23.39	0.00	0.00	
D	1	(untitled)	1	1	D		382	1800	25	0.00	98	2	153.46	117.46	148.81	
Dx	1	(untitled)					76	Unrestricted	120	89.00	0	Unrestricted	19.31	0.00	0.00	
9	1	(untitled)	1				837	Unrestricted	120	120.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				424	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	602.87	50.08	12.04	14.46	15.53	425.78	23.06	0.00	448.84
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	610.27	60.85	10.03	23.81	15.53	558.67	23.06	0.00	581.73

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO NOTHING
D4 - 2025 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:36:27	24/03/2022 17:36:28	08:00	120	596.09	40.36	101.28	D/1	1	5	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO NOTHING		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.52						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	238.42						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	194.95						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.95						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	10	10
B	1	366	366
	2	50	50
Bx	1	1044	1044
C	1	32	32
	2	786	786
Cx	1	501	501
D	1	395	395
Dx	1	78	78
9	1	818	818
10	1	416	416

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.02	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.61	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.39	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.31	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.02	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.61	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.39	30.00	✓	Nearside	41.20
Dx	1	2	A/1	Dx/1	19.31	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.02	30.00	✓	Offside	56.10
Bx	1	3	C/2	Bx/1	28.61	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.39	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.31	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	30	2	786	0	0	0	0
	2	135	0	6	254	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	366	48	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	254
	7		2	1	D/1, Cx/1	Normal	135
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	786
	43		1	2	9/1, C/1, Dx/1	Normal	30
	46		4	1	10/1, B/1, Cx/1	Normal	366
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	48

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	55	70	0	0	Traffic	
	B	(untitled)	5	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	25	30	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	30, 40, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	30	25	1	25
	2	✓	2	E	35	40	5	1	5
	3	✓	3	A	45	100	55	1	55
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

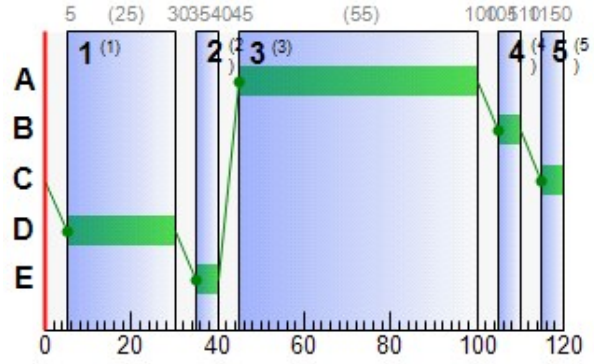
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	45	100	55
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	30	25
	E	1	✓	35	40	5

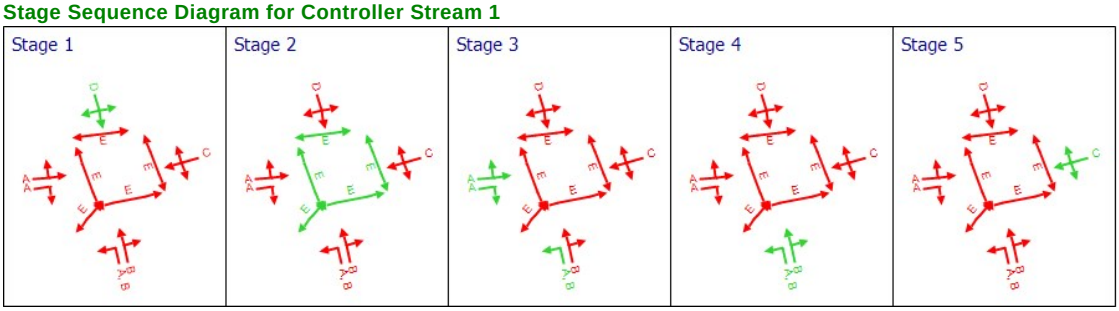
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	45	100	55
B	2	1	1	B	105	110	5
C	1	1	1	A	45	100	55
C	2	1	1	A	45	100	55
D	1	1	1	D	5	30	25

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	39	154	366	1800	60	16.59	6.94	66.50	23.95	2.72	26.67
		2	56	80	50	1800	5	79.67	1.96	14.07	15.71	0.72	16.44
	Bx	1	0	Unrestricted	1041	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4	2525	32	1800	55	17.49	0.58	3.33	2.21	0.21	2.42
		2	94	7	786	1800	55	55.49	30.17	433.72	172.03	11.05	183.09
	Cx	1	0	Unrestricted	499	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	101	-1	395	1800	25	144.72	23.68	45.38	225.48	8.18	233.65
	Dx	1	0	Unrestricted	78	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	818	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	416	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	120
	B	1	366	366	0		1800	930	39		154	0.00	60
		2	50	50	0		1800	90	56		80	0.00	5
	Bx	1	1041	1041	3	✓	Unrestricted	Unrestricted	0		Unrestricted	0.48	120
	C	1	32	32	0		1800	840	4		2525	0.00	55
		2	786	786	0		1800	840	94		7	0.00	55
	Cx	1	499	499	2	✓	Unrestricted	Unrestricted	0		Unrestricted	0.48	120
	D	1	395	390	0		1800	390	101	✓	-1	0.00	25
	Dx	1	78	78	0		Unrestricted	Unrestricted	0		Unrestricted	1.08	120
	9	1	818	818	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	416	416	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	16.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	16.59	1.56	0.13	23.95	59.26	209.27	7.61	2.72
		2	9.60	79.67	0.77	0.33	15.71	115.50	48.26	9.49	0.72
	Bx	1	28.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	17.49	0.15	0.00	2.21	53.25	17.02	0.02	0.21
		2	4.80	55.49	6.61	5.50	172.03	112.14	724.81	156.64	11.05
	Cx	1	23.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	144.72	5.09	10.79	225.48	167.22	386.64	265.52	8.18
	Dx	1	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.22	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	6.94	10.43	66.50	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.96	13.91	14.07	0.00	0.00	0.00	2.00	0.00	2.00	
	Bx	1	0.00	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	0.58	17.39	3.33	0.00	0.00	0.00	54.00	0.00	54.00	
		2	0.00	30.17	6.96	433.72	10.38	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.91	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
	D	1	0.00	23.68	52.17	45.38	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.99	0.00	0.00	0.00	0.00	88.00	0.00	88.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	107.00	107.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	1.33	0.04	30.00	16.02
	B	1	21.96	2.42	9.08	23.79
		2	4.00	1.24	3.23	89.27
	Bx	1	248.14	8.27	30.00	28.61
	C	1	3.20	0.26	12.21	29.49
		2	31.44	13.16	2.39	60.29
	Cx	1	97.34	3.24	30.00	23.39
	D	1	118.50	19.83	5.98	180.72
	Dx	1	12.55	0.42	30.00	19.31
	9	1	44.08	1.47	30.00	6.47
	10	1	16.91	0.56	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	6.94	0.13	5.62	1.00	0.00	26.67
		2	0.00	0.00	✓	1.96	0.34	1.92	1.00	0.00	16.44
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	0.58	0.00	0.57	1.00	0.00	2.42
		2	0.00	0.00	✓	30.70	6.03	20.01	1.00	0.00	183.09
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	29.18	16.29	26.47	1.00	0.00	233.65
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:36:27	24/03/2022 17:36:28	08:00	120	596.09	40.36	101.28	D/1	1	5	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	101	-1	4495	925	24.83	440.26	22.93	463.19

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5095	5090	5	✓	101	✓	-1	975

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.12	28.52	23.61	16.75	573.15	36.06	1389.76	439.32	22.93

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	433.72	0.00	270.00	107.00	377.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	607.17	61.76	9.83

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	596.09

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.3	52.0	95.4	0.0	0.0	0.0	0.0
	2	204.1	0.0	196.7	209.3	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	52.1	113.5	110.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		196.74		6	196.74
6	2	4	254		209.33		254	209.33
7	2	1	135		204.11		135	204.11
8	3	2	0		0.00		0	0.00
9	3	4	4		93.76		4	93.76
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	2		51.98		2	51.98
20	1	4	786		95.37		786	95.37
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	30		55.27		30	55.27
46	4	1	366		52.06		366	52.06
47	4	3	2		110.17		2	110.17
48	4	2	48		113.46		48	113.46
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.02	0.00	0.00	
B	1	(untitled)	1	1	A	B	366	1800	60	0.00	39	154	23.79	16.59	59.26	
	2	(untitled)	1	1	B		50	1800	5	2.00	56	80	89.27	79.67	115.50	
Bx	1	(untitled)					1041	Unrestricted	120	0.00	0	Unrestricted	28.61	0.00	0.00	
C	1	(untitled)	1	1	A		32	1800	55	54.00	4	2525	29.49	17.49	53.25	
	2	(untitled)	1	1	A		786 <	1800	55	0.00	94	7	60.29	55.49	112.14	
Cx	1	(untitled)					499	Unrestricted	120	1.00	0	Unrestricted	23.39	0.00	0.00	
D	1	(untitled)	1	1	D		395	1800	25	0.00	101	-1	180.72	144.72	167.22	
Dx	1	(untitled)					78	Unrestricted	120	88.00	0	Unrestricted	19.31	0.00	0.00	
9	1	(untitled)	1				818	Unrestricted	120	107.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				416	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	599.77	51.00	11.76	14.26	16.75	440.26	22.93	0.00	463.19
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	607.17	61.76	9.83	23.61	16.75	573.15	22.93	0.00	596.09

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - 2025 DO SOMETHING
D5 - 2025 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:36:28	24/03/2022 17:36:28	08:00	120	767.87	52.11	101.28	D/1	2	9	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO SOMETHING		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.52						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	238.42						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	194.95						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.95						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	10	10
B	1	395	395
	2	50	50
Bx	1	1106	1106
C	1	32	32
	2	848	848
Cx	1	530	530
D	1	395	395
Dx	1	78	78
9	1	880	880
10	1	445	445

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.02	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.61	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.39	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.31	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.02	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.61	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.39	30.00	✓	Nearside	41.20
Dx	1	2	A/1	Dx/1	19.31	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.02	30.00	✓	Offside	56.10
Bx	1	3	C/2	Bx/1	28.61	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.39	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.31	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	30	2	848	0	0	0	0
	2	135	0	6	254	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	395	48	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	254
	7		2	1	D/1, Cx/1	Normal	135
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	848
	43		1	2	9/1, C/1, Dx/1	Normal	30
	46		4	1	10/1, B/1, Cx/1	Normal	395
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	48

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	55	70	0	0	Traffic	
	B	(untitled)	5	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	25	30	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	30, 40, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	30	25	1	25
	2	✓	2	E	35	40	5	1	5
	3	✓	3	A	45	100	55	1	55
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

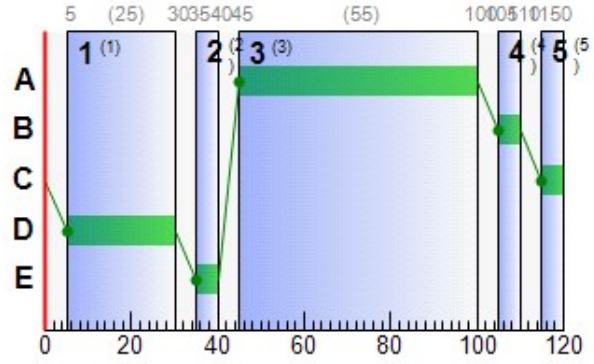
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	45	100	55
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	30	25
	E	1	✓	35	40	5

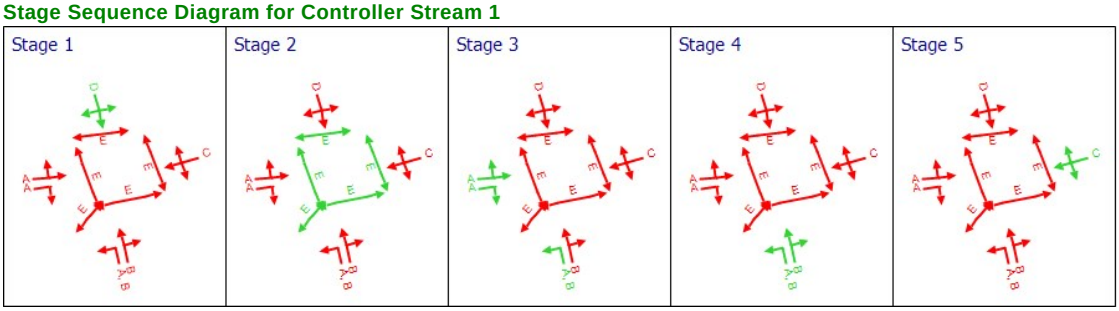
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	45	100	55
B	2	1	1	B	105	110	5
C	1	1	1	A	45	100	55
C	2	1	1	A	45	100	55
D	1	1	1	D	5	30	25

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	42	135	395	1800	60	17.08	7.73	74.05	26.61	3.02	29.63
		2	56	80	50	1800	5	79.67	1.96	14.07	15.71	0.72	16.44
	Bx	1	0	Unrestricted	1095	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4	2525	32	1800	55	17.49	0.58	3.33	2.21	0.21	2.42
		2	101	-1	848	1800	55	100.52	43.98	632.19	336.23	15.68	351.91
	Cx	1	0	Unrestricted	528	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	101	-1	395	1800	25	144.72	23.68	45.38	225.48	8.18	233.65
	Dx	1	0	Unrestricted	78	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	880	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	445	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	120
	B	1	395	395	0		1800	930	42		135	0.00	60
		2	50	50	0		1800	90	56		80	0.00	5
	Bx	1	1095	1095	11	✓	Unrestricted	Unrestricted	0		Unrestricted	0.46	120
	C	1	32	32	0		1800	840	4		2525	0.00	55
		2	848	840	0		1800	840	101	✓	-1	0.00	55
	Cx	1	528	528	2	✓	Unrestricted	Unrestricted	0		Unrestricted	0.48	120
	D	1	395	390	0		1800	390	101	✓	-1	0.00	25
	Dx	1	78	78	0		Unrestricted	Unrestricted	0		Unrestricted	1.08	120
	9	1	880	880	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	445	445	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	16.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	17.08	1.72	0.16	26.61	60.90	231.23	9.33	3.02
		2	9.60	79.67	0.77	0.33	15.71	115.50	48.26	9.49	0.72
	Bx	1	28.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	17.49	0.15	0.00	2.21	53.25	17.02	0.02	0.21
		2	4.80	100.52	7.47	16.21	336.23	148.88	827.81	422.83	15.68
	Cx	1	23.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	144.72	5.09	10.79	225.48	167.22	386.64	265.52	8.18
	Dx	1	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.22	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	7.73	10.43	74.05	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.96	13.91	14.07	0.00	0.00	0.00	2.00	0.00	2.00	
	Bx	1	0.00	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	0.58	17.39	3.33	0.00	0.00	0.00	54.00	0.00	54.00	
		2	0.00	43.98	6.96	632.19	23.14	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.91	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
	D	1	0.00	23.68	52.17	45.38	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.99	0.00	0.00	0.00	0.00	88.00	0.00	88.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	120.00	120.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	1.33	0.04	30.00	16.02
	B	1	23.70	2.66	8.90	24.28
		2	4.00	1.24	3.23	89.27
	Bx	1	261.02	8.70	30.00	28.61
	C	1	3.20	0.26	12.21	29.49
		2	33.92	24.81	1.37	105.32
	Cx	1	102.99	3.43	30.00	23.39
	D	1	118.50	19.83	5.98	180.72
	Dx	1	12.55	0.42	30.00	19.31
	9	1	47.42	1.58	30.00	6.47
	10	1	18.09	0.60	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	7.73	0.16	6.08	1.00	0.00	29.63
		2	0.00	0.00	✓	1.96	0.34	1.92	1.00	0.00	16.44
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	0.58	0.00	0.57	1.00	0.00	2.42
		2	0.00	0.00	✓	52.25	24.49	39.42	1.00	0.00	351.91
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	29.18	16.29	26.47	1.00	0.00	233.65
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:36:28	24/03/2022 17:36:28	08:00	120	767.87	52.11	101.28	D/1	2	9	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	101	-1	4760	925	32.34	607.11	27.86	634.97

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5360	5347	13	✓	101	✓	-1	975

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	14.98	35.00	24.62	27.49	740.01	41.83	1514.72	707.23	27.86

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	632.19	0.00	270.00	120.00	390.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	634.44	74.42	8.52

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	767.87

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.3	52.0	140.4	0.0	0.0	0.0	0.0
	2	204.1	0.0	196.7	209.3	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	52.6	113.5	110.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		196.74		6	196.74
6	2	4	254		209.33		254	209.33
7	2	1	135		204.11		135	204.11
8	3	2	0		0.00		0	0.00
9	3	4	4		93.76		4	93.76
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	2		51.98		2	51.98
20	1	4	848		140.40		848	140.40
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	30		55.27		30	55.27
46	4	1	395		52.55		395	52.55
47	4	3	2		110.17		2	110.17
48	4	2	48		113.46		48	113.46
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.02	0.00	0.00	
B	1	(untitled)	1	1	A	B	395	1800	60	0.00	42	135	24.28	17.08	60.90	
	2	(untitled)	1	1	B		50	1800	5	2.00	56	80	89.27	79.67	115.50	
Bx	1	(untitled)					1095	Unrestricted	120	0.00	0	Unrestricted	28.61	0.00	0.00	
C	1	(untitled)	1	1	A		32	1800	55	54.00	4	2525	29.49	17.49	53.25	
	2	(untitled)	1	1	A		848 <	1800	55	0.00	101	-1	105.32	100.52	148.88	
Cx	1	(untitled)					528	Unrestricted	120	1.00	0	Unrestricted	23.39	0.00	0.00	
D	1	(untitled)	1	1	D		395	1800	25	0.00	101	-1	180.72	144.72	167.22	
Dx	1	(untitled)					78	Unrestricted	120	88.00	0	Unrestricted	19.31	0.00	0.00	
9	1	(untitled)	1				880	Unrestricted	120	120.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				445	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	627.04	63.66	9.85	15.27	27.49	607.11	27.86	0.00	634.97
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	634.44	74.42	8.52	24.62	27.49	740.01	27.86	0.00	767.87

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 15

Version: 15.5.2.7994

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Filename: Junction 3 - AM - Proposed Layout.t16
Path: \\wmfilesvr\Moylan\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 3\Proposed Layout
Report generation date: 24/03/2022 17:28:17

»A1 - 2023 DO NOTHING : D1 - 2023 DO NOTHING, * :
»A2 - 2023 DO SOMETHING : D2 - 2023 DO SOMETHING, * :
»A3 - 2025 DO NOTHING : D3 - 2025 DO NOTHING, * :
»A4 - 2025 DO SOMETHING : D4 - 2025 DO SOMETHING, * :
»A5 - 2027 DO NOTHING : D5 - 2027 DO NOTHING, * :
»A6 - 2027 DO SOMETHING : D6 - 2027 DO SOMETHING, * :
»A7 - 2032 DO NOTHING : D7 - 2032 DO NOTHING, * :
»A8 - 2032 DO SOMETHING : D8 - 2032 DO SOMETHING, * :
»A9 - 2042 DO NOTHING : D9 - 2042 DO NOTHING, * :
»A10 - 2042 DO SOMETHING : D10 - 2042 DO SOMETHING, * :

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

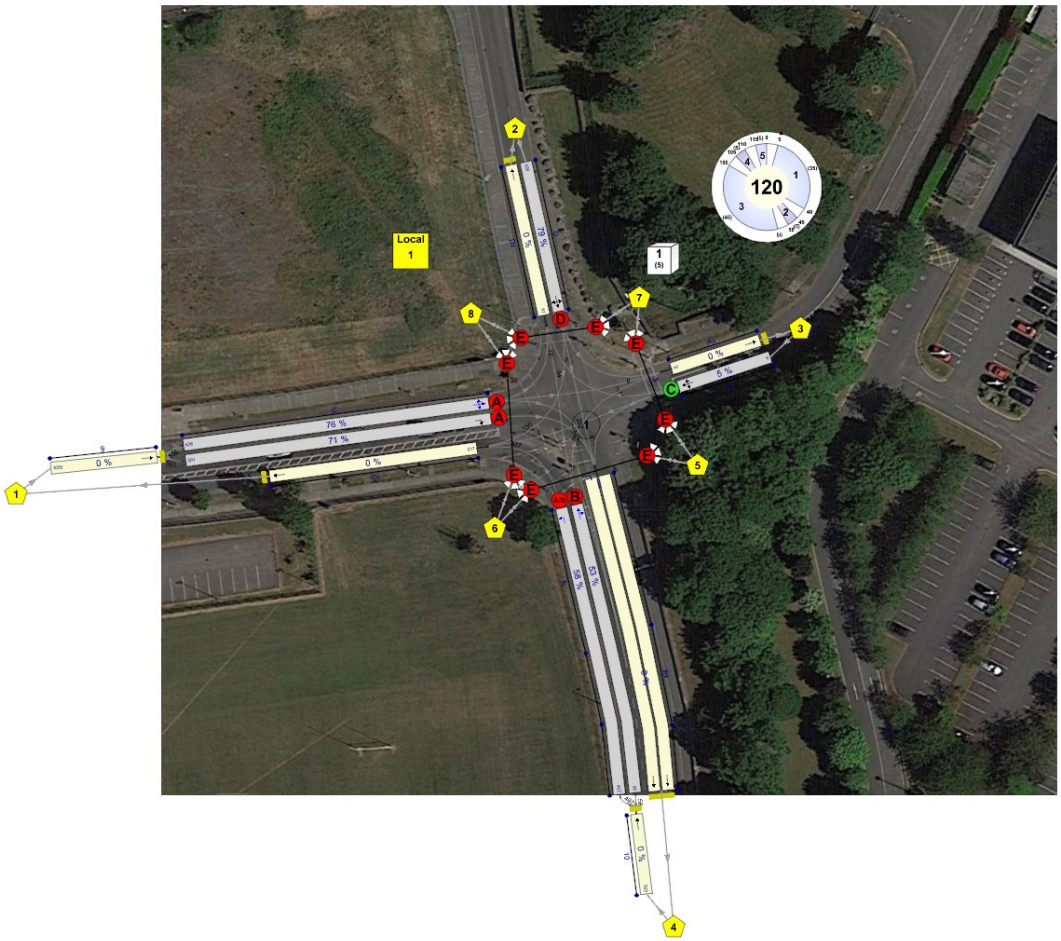
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



(untitled)
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2023 DO NOTHING
D1 - 2023 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:27:21	24/03/2022 17:27:21	08:00	120	308.48	20.62	67.75	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO NOTHING		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	9	9
B	1	348	348
	2	48	48
Bx	1	995	995
C	1	405	405
	2	375	375
Cx	1	477	477
D	1	376	376
Dx	1	74	74
9	1	779	779
10	1	396	396

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	28	2	749	0	0	0	0
	2	129	0	5	242	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	348	46	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	5
	6		2	4	D/1, Bx/1	Normal	242
	7		2	1	D/1, Cx/1	Normal	129
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	375
	21		1	4	9/1, C/1, Bx/1	Normal	375
	43		1	2	9/1, C/1, Dx/1	Normal	28
	46		4	1	10/1, B/1, Cx/1	Normal	348
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	46

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

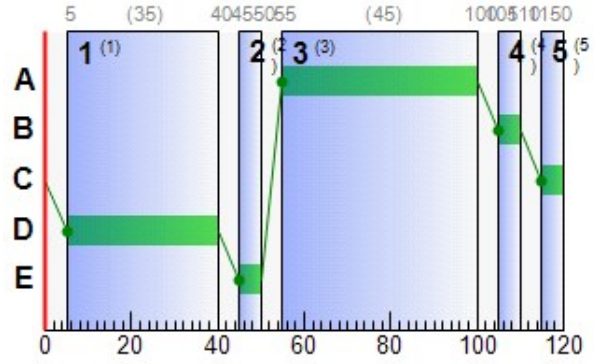
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

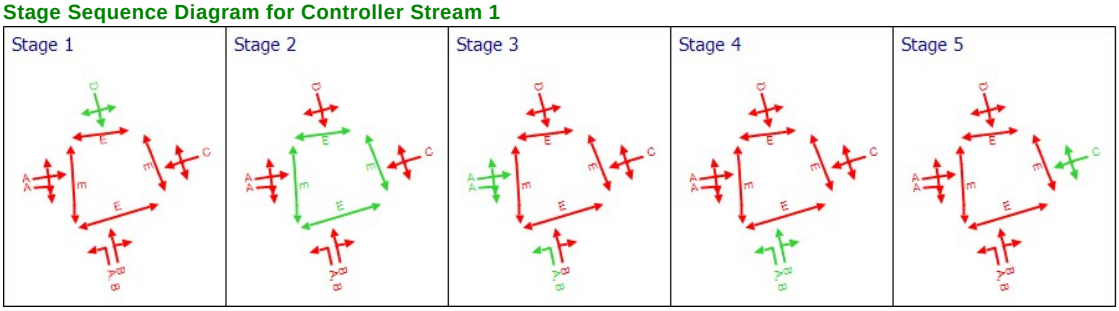
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2525	4	1800	5	54.35	0.13	0.91	0.86	0.05	0.90
	Ax	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	43	133	348	1800	50	22.22	7.70	73.81	30.50	2.96	33.46
		2	46	119	48	1800	5	68.79	1.73	12.47	13.02	0.64	13.67
	Bx	1	0	Unrestricted	996	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	57	74	405	1800	45	32.08	10.96	63.02	51.24	4.04	55.28
		2	53	88	375	1800	45	30.94	9.88	142.08	45.76	3.65	49.41
	Cx	1	0	Unrestricted	477	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	68	48	376	1800	35	42.99	11.56	22.16	63.76	4.29	68.06
	Dx	1	0	Unrestricted	74	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	780	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	396	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	105	4		2525	0.00	5
	Ax	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	B	1	348	348	0		1800	810	43		133	0.00	50
		2	48	48	0		1800	105	46		119	0.00	5
	Bx	1	996	996	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.65	120
	C	1	405	405	-1	✓	1800	705	57		74	0.00	45
		2	375	375	-1	✓	1800	705	53		88	0.00	45
	Cx	1	477	477	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120
	D	1	376	376	0		1800	555	68		48	0.00	35
	Dx	1	74	74	0		Unrestricted	Unrestricted	0		Unrestricted	1.03	120
	9	1	780	780	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	396	396	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.35	0.06	0.00	0.86	93.75	3.73	0.02	0.05
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	22.22	1.99	0.16	30.50	67.78	226.26	9.62	2.96
		2	9.60	68.79	0.73	0.19	13.02	106.98	45.87	5.48	0.64
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	32.08	3.22	0.39	51.24	79.55	310.69	11.48	4.04
		2	4.80	30.94	2.92	0.30	45.76	77.53	281.75	8.97	3.65
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	42.99	3.79	0.70	63.76	91.05	321.63	20.73	4.29
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.91	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	7.70	10.43	73.81	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.73	13.91	12.47	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	10.96	17.39	63.02	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	9.88	6.96	142.08	0.36	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	7.00	0.00	7.00	
	D	1	0.00	11.56	52.17	22.16	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	78.00	0.00	78.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	29.00	29.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.50	63.95
	Ax	1	1.22	0.04	30.00	16.22
	B	1	20.88	2.84	7.34	29.42
		2	3.84	1.05	3.67	78.39
	Bx	1	236.54	7.88	30.00	28.50
	C	1	40.50	4.96	8.17	44.08
		2	15.00	3.72	4.03	35.74
	Cx	1	91.93	3.06	30.00	23.13
	D	1	112.80	8.25	13.67	78.99
	Dx	1	11.89	0.40	30.00	19.28
	9	1	42.03	1.40	30.00	6.47
	10	1	16.10	0.54	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.90
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	7.70	0.16	6.25	1.00	0.00	33.46
		2	0.00	0.00	✓	1.74	0.19	1.70	1.00	0.00	13.67
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	10.96	0.39	8.60	1.00	0.00	55.28
		2	0.00	0.00	✓	9.88	0.30	7.91	1.00	0.00	49.41
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	11.57	0.71	9.37	1.00	0.00	68.06
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:27:21	24/03/2022 17:27:21	08:00	120	308.48	20.62	67.75	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	68	0	4288	905	12.13	205.16	15.63	220.78

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4688	4688	-3	✓	68		48	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.09	15.84	18.89	1.74	292.85	26.58	1189.93	56.30	15.63

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	142.08	0.00	214.00	29.00	243.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	599.25	41.58	14.41

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	308.48

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	69.8	66.8	74.9	0.0	0.0	0.0	0.0
	2	102.1	0.0	95.2	107.5	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.5	0.0	0.0	0.0	0.0
	4	57.4	102.5	99.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	5		95.22		5	95.22
6	2	4	242		107.49		242	107.49
7	2	1	129		102.12		129	102.12
8	3	2	0		0.00		0	0.00
9	3	4	4		92.45		4	92.45
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		66.77		2	66.77
20	1	4	375		70.70		375	70.70
21	1	4	375		79.04		375	79.04
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	28		69.82		28	69.82
46	4	1	348		57.43		348	57.43
47	4	3	2		99.49		2	99.49
48	4	2	46		102.55		46	102.55
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	6.00	4	2525	63.95	54.35	93.75	
Ax	1	(untitled)					9	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	348	1800	50	0.00	43	133	29.42	22.22	67.78	
	2	(untitled)	1	1	B		48	1800	5	3.00	46	119	78.39	68.79	106.98	
Bx	1	(untitled)					996	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		405	1800	45	0.00	57	74	44.08	32.08	79.55	
	2	(untitled)	1	1	A		375 <	1800	45	0.00	53	88	35.74	30.94	77.53	
Cx	1	(untitled)					477	Unrestricted	120	7.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		376	1800	35	0.00	68	48	78.99	42.99	91.05	
Dx	1	(untitled)					74	Unrestricted	120	78.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				780	Unrestricted	120	29.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				396	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	593.05	34.22	17.33	12.71	1.74	205.16	15.63	0.00	220.78
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	599.25	41.58	14.41	18.89	1.74	292.85	15.63	0.00	308.48

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO SOMETHING
D2 - 2023 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:27:22	24/03/2022 17:27:22	08:00	120	320.18	21.39	67.75	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO SOMETHING		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	9	9
B	1	369	369
	2	48	48
Bx	1	1040	1040
C	1	427	427
	2	397	397
Cx	1	498	498
D	1	376	376
Dx	1	74	74
9	1	824	824
10	1	417	417

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	28	2	794	0	0	0	0
	2	129	0	5	242	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	369	46	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	5
	6		2	4	D/1, Bx/1	Normal	242
	7		2	1	D/1, Cx/1	Normal	129
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	397
	21		1	4	9/1, C/1, Bx/1	Normal	397
	43		1	2	9/1, C/1, Dx/1	Normal	28
	46		4	1	10/1, B/1, Cx/1	Normal	369
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	46

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

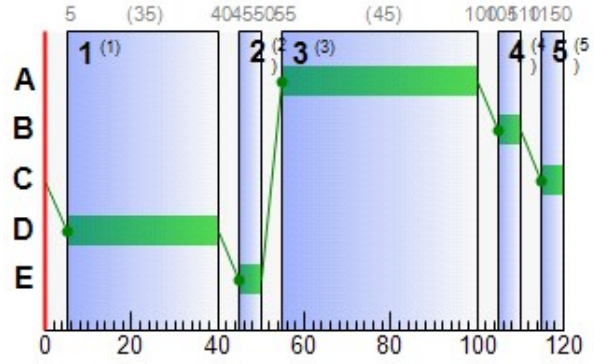
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

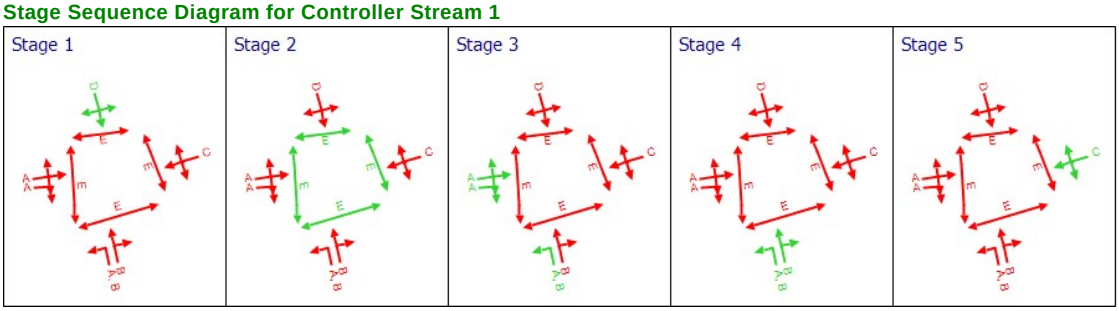
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2525	4	1800	5	54.35	0.13	0.91	0.86	0.05	0.90
	Ax	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	46	120	369	1800	50	22.71	8.29	79.42	33.05	3.20	36.25
		2	46	119	48	1800	5	68.79	1.73	12.47	13.02	0.64	13.67
	Bx	1	0	Unrestricted	1040	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	61	65	427	1800	45	33.00	11.73	67.45	55.59	4.34	59.93
		2	56	78	397	1800	45	31.76	10.62	152.61	49.74	3.93	53.67
	Cx	1	0	Unrestricted	498	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	68	48	376	1800	35	42.99	11.56	22.16	63.76	4.29	68.06
	Dx	1	0	Unrestricted	74	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	824	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	417	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	105	4		2525	0.00	5
	Ax	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	B	1	369	369	0		1800	810	46		120	0.00	50
		2	48	48	0		1800	105	46		119	0.00	5
	Bx	1	1040	1040	0		Unrestricted	Unrestricted	0		Unrestricted	0.66	120
	C	1	427	427	0		1800	705	61		65	0.00	45
		2	397	397	0		1800	705	56		78	0.00	45
	Cx	1	498	498	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120
	D	1	376	376	0		1800	555	68		48	0.00	35
	Dx	1	74	74	0		Unrestricted	Unrestricted	0		Unrestricted	1.02	120
	9	1	824	824	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	417	417	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.35	0.06	0.00	0.86	93.75	3.73	0.02	0.05
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	22.71	2.14	0.19	33.05	69.17	243.93	11.31	3.20
		2	9.60	68.79	0.73	0.19	13.02	106.98	45.87	5.48	0.64
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	33.00	3.45	0.46	55.59	81.13	332.69	13.74	4.34
		2	4.80	31.76	3.14	0.36	49.74	78.97	302.77	10.75	3.93
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	42.99	3.79	0.70	63.76	91.05	321.63	20.73	4.29
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.91	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	8.29	10.43	79.42	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.73	13.91	12.47	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	11.73	17.39	67.45	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.62	6.96	152.61	0.52	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	7.00	0.00	7.00	
	D	1	0.00	11.56	52.17	22.16	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	78.00	0.00	78.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	34.00	34.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.50	63.95
	Ax	1	1.22	0.04	30.00	16.22
	B	1	22.14	3.07	7.22	29.91
		2	3.84	1.05	3.67	78.39
	Bx	1	246.99	8.23	30.00	28.50
	C	1	42.70	5.34	8.00	45.00
		2	15.88	4.03	3.94	36.56
	Cx	1	95.98	3.20	30.00	23.13
	D	1	112.80	8.25	13.67	78.99
	Dx	1	11.89	0.40	30.00	19.28
	9	1	44.40	1.48	30.00	6.47
	10	1	16.95	0.57	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.90
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.29	0.19	6.65	1.00	0.00	36.25
		2	0.00	0.00	✓	1.74	0.19	1.70	1.00	0.00	13.67
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	11.73	0.46	9.12	1.00	0.00	59.93
		2	0.00	0.00	✓	10.62	0.36	8.41	1.00	0.00	53.67
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	11.57	0.71	9.37	1.00	0.00	68.06
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:27:22	24/03/2022 17:27:22	08:00	120	320.18	21.39	67.75	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	68	0	4483	905	12.22	216.03	16.46	232.48

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4883	4883	0		68		48	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.99	15.77	19.49	1.90	303.72	26.88	1250.61	62.04	16.46

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	152.61	0.00	214.00	34.00	248.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	621.31	43.08	14.42

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	320.18

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	70.7	67.7	75.7	0.0	0.0	0.0	0.0
	2	102.1	0.0	95.2	107.5	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.5	0.0	0.0	0.0	0.0
	4	57.9	102.5	99.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	5		95.22		5	95.22
6	2	4	242		107.49		242	107.49
7	2	1	129		102.12		129	102.12
8	3	2	0		0.00		0	0.00
9	3	4	4		92.45		4	92.45
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		67.69		2	67.69
20	1	4	397		71.53		397	71.53
21	1	4	397		79.97		397	79.97
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	28		70.75		28	70.75
46	4	1	369		57.92		369	57.92
47	4	3	2		99.49		2	99.49
48	4	2	46		102.55		46	102.55
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	6.00	4	2525	63.95	54.35	93.75	
Ax	1	(untitled)					9	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	369	1800	50	0.00	46	120	29.91	22.71	69.17	
	2	(untitled)	1	1	B		48	1800	5	3.00	46	119	78.39	68.79	106.98	
Bx	1	(untitled)					1040	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		427	1800	45	0.00	61	65	45.00	33.00	81.13	
	2	(untitled)	1	1	A		397 <	1800	45	0.00	56	78	36.56	31.76	78.97	
Cx	1	(untitled)					498	Unrestricted	120	7.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		376	1800	35	0.00	68	48	78.99	42.99	91.05	
Dx	1	(untitled)					74	Unrestricted	120	78.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				824	Unrestricted	120	34.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				417	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	615.11	35.72	17.22	13.31	1.90	216.03	16.46	0.00	232.48
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	621.31	43.08	14.42	19.49	1.90	303.72	16.46	0.00	320.18

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2025 DO NOTHING
D3 - 2025 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:27:23	24/03/2022 17:27:23	08:00	120	319.62	21.36	69.91	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO NOTHING		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	9	9
B	1	360	360
	2	50	50
Bx	1	1028	1028
C	1	418	418
	2	387	387
Cx	1	493	493
D	1	388	388
Dx	1	77	77
9	1	805	805
10	1	410	410

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	29	2	774	0	0	0	0
	2	133	0	5	250	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	360	48	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	5
	6		2	4	D/1, Bx/1	Normal	250
	7		2	1	D/1, Cx/1	Normal	133
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	387
	21		1	4	9/1, C/1, Bx/1	Normal	387
	43		1	2	9/1, C/1, Dx/1	Normal	29
	46		4	1	10/1, B/1, Cx/1	Normal	360
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	48

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

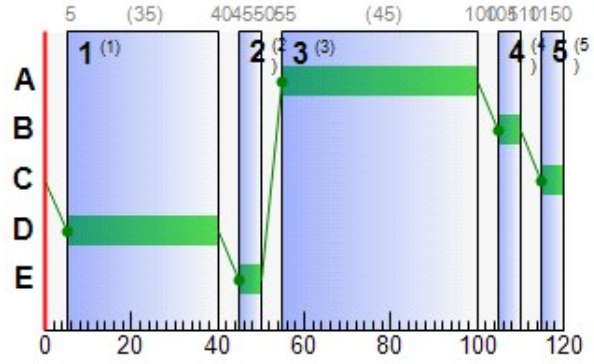
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

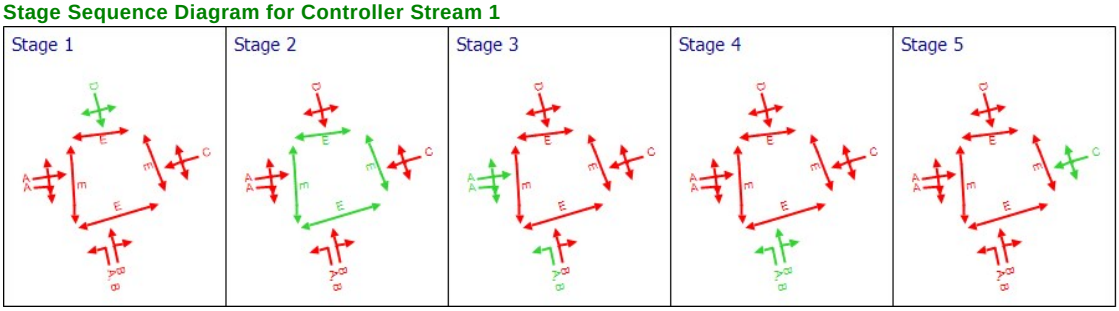
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2525	4	1800	5	54.35	0.13	0.91	0.86	0.05	0.90
	Ax	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	44	125	360	1800	50	22.50	7.98	76.45	31.95	3.09	35.04
		2	48	110	50	1800	5	69.96	1.82	13.10	13.80	0.68	14.47
	Bx	1	0	Unrestricted	1028	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	59	69	418	1800	45	32.61	11.46	65.89	53.77	4.21	57.99
		2	55	82	387	1800	45	31.38	10.22	146.94	47.90	3.79	51.69
	Cx	1	0	Unrestricted	493	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	70	43	388	1800	35	44.00	12.11	23.22	67.33	4.50	71.83
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	805	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	410	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	105	4		2525	0.00	5
	Ax	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	120
	B	1	360	360	0		1800	810	44		125	0.00	50
		2	50	50	0		1800	105	48		110	0.00	5
	Bx	1	1028	1028	0		Unrestricted	Unrestricted	0		Unrestricted	0.65	120
	C	1	418	418	0		1800	705	59		69	0.00	45
		2	387	387	0		1800	705	55		82	0.00	45
	Cx	1	493	493	0		Unrestricted	Unrestricted	0		Unrestricted	0.56	120
	D	1	388	388	0		1800	555	70		43	0.00	35
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	1.03	120
	9	1	805	805	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	410	410	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.35	0.06	0.00	0.86	93.75	3.73	0.02	0.05
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	22.50	2.07	0.18	31.95	68.50	236.05	10.56	3.09
		2	9.60	69.96	0.76	0.21	13.80	107.95	47.84	6.14	0.68
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	32.61	3.36	0.43	53.77	80.38	323.23	12.76	4.21
		2	4.80	31.38	3.04	0.33	47.90	78.11	292.37	9.90	3.79
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	44.00	3.94	0.80	67.33	92.41	334.96	23.57	4.50
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.91	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	7.98	10.43	76.45	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.82	13.91	13.10	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	11.46	17.39	65.89	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.22	6.96	146.94	0.43	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	6.00	0.00	6.00	
	D	1	0.00	12.11	52.17	23.22	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	77.00	0.00	77.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	31.00	31.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.50	63.95
	Ax	1	1.22	0.04	30.00	16.22
	B	1	21.60	2.97	7.27	29.70
		2	4.00	1.10	3.62	79.56
	Bx	1	244.14	8.14	30.00	28.50
	C	1	41.80	5.18	8.07	44.61
		2	15.48	3.89	3.98	36.18
	Cx	1	95.02	3.17	30.00	23.13
	D	1	116.40	8.62	13.50	80.00
	Dx	1	12.37	0.41	30.00	19.28
	9	1	43.38	1.45	30.00	6.47
	10	1	16.67	0.56	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.90
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	7.98	0.18	6.48	1.00	0.00	35.04
		2	0.00	0.00	✓	1.82	0.21	1.78	1.00	0.00	14.47
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	11.46	0.43	8.91	1.00	0.00	57.99
		2	0.00	0.00	✓	10.22	0.33	8.18	1.00	0.00	51.69
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	12.12	0.80	9.75	1.00	0.00	71.83
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:27:23	24/03/2022 17:27:23	08:00	120	319.62	21.36	69.91	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	70	0	4429	905	12.34	215.60	16.31	231.92

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4829	4829	0		70		43	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.10	15.92	19.41	1.95	303.30	26.94	1238.18	62.96	16.31

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	146.94	0.00	212.00	31.00	243.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	618.59	42.96	14.40

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	319.62

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	70.4	67.3	75.4	0.0	0.0	0.0	0.0
	2	103.1	0.0	96.2	108.5	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.5	0.0	0.0	0.0	0.0
	4	57.7	103.7	100.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	5		96.22		5	96.22
6	2	4	250		108.50		250	108.50
7	2	1	133		103.12		133	103.12
8	3	2	0		0.00		0	0.00
9	3	4	4		92.45		4	92.45
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		67.30		2	67.30
20	1	4	387		71.14		387	71.14
21	1	4	387		79.58		387	79.58
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	29		70.36		29	70.36
46	4	1	360		57.70		360	57.70
47	4	3	2		100.66		2	100.66
48	4	2	48		103.71		48	103.71
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	6.00	4	2525	63.95	54.35	93.75	
Ax	1	(untitled)					9	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	360	1800	50	0.00	44	125	29.70	22.50	68.50	
	2	(untitled)	1	1	B		50	1800	5	3.00	48	110	79.56	69.96	107.95	
Bx	1	(untitled)					1028	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		418	1800	45	0.00	59	69	44.61	32.61	80.38	
	2	(untitled)	1	1	A		387 <	1800	45	0.00	55	82	36.18	31.38	78.11	
Cx	1	(untitled)					493	Unrestricted	120	6.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		388	1800	35	0.00	70	43	80.00	44.00	92.41	
Dx	1	(untitled)					77	Unrestricted	120	77.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				805	Unrestricted	120	31.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				410	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	612.39	35.60	17.20	13.24	1.95	215.60	16.31	0.00	231.92
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	618.59	42.96	14.40	19.41	1.95	303.30	16.31	0.00	319.62

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO SOMETHING
D4 - 2025 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:27:24	24/03/2022 17:27:24	08:00	120	336.84	22.49	69.91	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO SOMETHING		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	9	9
B	1	389	389
	2	50	50
Bx	1	1089	1089
C	1	449	449
	2	418	418
Cx	1	522	522
D	1	388	388
Dx	1	77	77
9	1	866	866
10	1	439	439

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	29	2	835	0	0	0	0
	2	133	0	5	250	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	389	48	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	5
	6		2	4	D/1, Bx/1	Normal	250
	7		2	1	D/1, Cx/1	Normal	133
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	418
	21		1	4	9/1, C/1, Bx/1	Normal	418
	43		1	2	9/1, C/1, Dx/1	Normal	29
	46		4	1	10/1, B/1, Cx/1	Normal	389
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	48

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

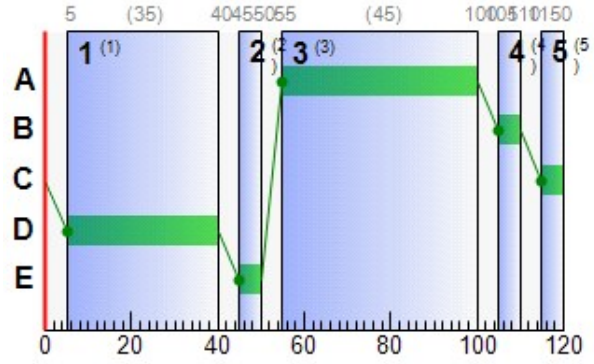
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

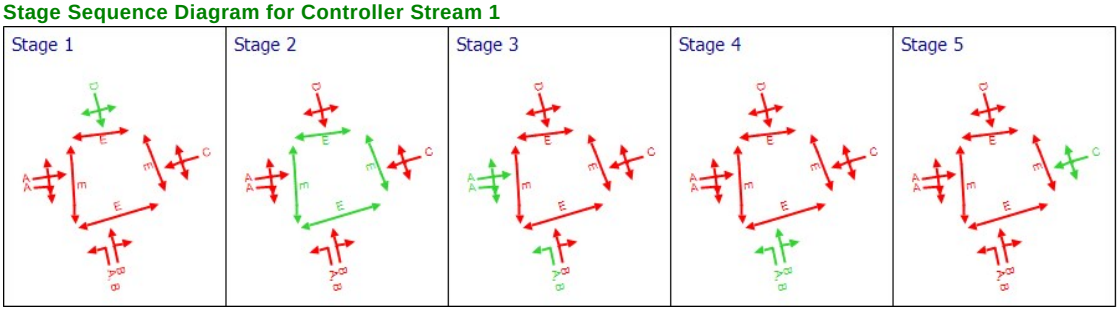
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2525	4	1800	5	54.35	0.13	0.91	0.86	0.05	0.90
	Ax	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	48	108	389	1800	50	23.20	8.87	84.96	35.59	3.43	39.03
		2	48	110	50	1800	5	69.96	1.82	13.10	13.80	0.68	14.47
	Bx	1	0	Unrestricted	1090	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	64	57	449	1800	45	34.02	12.65	72.75	60.26	4.67	64.92
		2	59	69	418	1800	45	32.61	11.46	164.73	53.77	4.21	57.99
	Cx	1	0	Unrestricted	522	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	70	43	388	1800	35	44.00	12.11	23.22	67.33	4.50	71.83
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	867	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	439	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	105	4		2525	0.00	5
	Ax	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	120
	B	1	389	389	0		1800	810	48		108	0.00	50
		2	50	50	0		1800	105	48		110	0.00	5
	Bx	1	1090	1090	-1		Unrestricted	Unrestricted	0		Unrestricted	0.66	120
	C	1	449	449	-1		1800	705	64		57	0.00	45
		2	418	418	-1		1800	705	59		69	0.00	45
	Cx	1	522	522	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120
	D	1	388	388	0		1800	555	70		43	0.00	35
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	1.01	120
	9	1	867	867	-1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	439	439	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.35	0.06	0.00	0.86	93.75	3.73	0.02	0.05
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	23.20	2.29	0.22	35.59	70.39	260.68	13.16	3.43
		2	9.60	69.96	0.76	0.21	13.80	107.95	47.84	6.14	0.68
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	34.02	3.69	0.55	60.26	82.91	355.80	16.45	4.67
		2	4.80	32.61	3.36	0.43	53.77	80.38	323.23	12.76	4.21
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	44.00	3.94	0.80	67.33	92.41	334.96	23.57	4.50
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.91	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	8.87	10.43	84.96	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.82	13.91	13.10	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	12.65	17.39	72.75	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	11.46	6.96	164.73	0.75	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	5.00	0.00	5.00	
	D	1	0.00	12.11	52.17	23.22	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	76.00	0.00	76.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	39.00	39.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.50	63.95
	Ax	1	1.22	0.04	30.00	16.22
	B	1	23.34	3.28	7.11	30.40
		2	4.00	1.10	3.62	79.56
	Bx	1	258.87	8.63	30.00	28.50
	C	1	44.90	5.74	7.82	46.02
		2	16.72	4.34	3.85	37.41
	Cx	1	100.61	3.35	30.00	23.13
	D	1	116.40	8.62	13.50	80.00
	Dx	1	12.37	0.41	30.00	19.28
	9	1	46.72	1.56	30.00	6.47
	10	1	17.85	0.59	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.90
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.87	0.22	7.03	1.00	0.00	39.03
		2	0.00	0.00	✓	1.82	0.21	1.78	1.00	0.00	14.47
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	12.65	0.56	9.66	1.00	0.00	64.92
		2	0.00	0.00	✓	11.46	0.43	8.91	1.00	0.00	57.99
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	12.12	0.80	9.75	1.00	0.00	71.83
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:27:24	24/03/2022 17:27:24	08:00	120	336.84	22.49	69.91	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	70	0	4702	905	12.49	231.61	17.53	249.14

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5102	5102	-3		70		43	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.97	15.87	20.27	2.21	319.31	27.41	1326.24	72.10	17.53

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	164.73	0.00	210.00	39.00	249.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	649.51	45.12	14.40

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	336.84

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	71.8	68.7	76.7	0.0	0.0	0.0	0.0
	2	103.1	0.0	96.2	108.5	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.5	0.0	0.0	0.0	0.0
	4	58.4	103.7	100.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	5		96.22		5	96.22
6	2	4	250		108.50		250	108.50
7	2	1	133		103.12		133	103.12
8	3	2	0		0.00		0	0.00
9	3	4	4		92.45		4	92.45
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		68.71		2	68.71
20	1	4	418		72.38		418	72.38
21	1	4	418		80.99		418	80.99
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	29		71.77		29	71.77
46	4	1	389		58.40		389	58.40
47	4	3	2		100.66		2	100.66
48	4	2	48		103.71		48	103.71
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	6.00	4	2525	63.95	54.35	93.75	
Ax	1	(untitled)					9	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	389	1800	50	0.00	48	108	30.40	23.20	70.39	
	2	(untitled)	1	1	B		50	1800	5	3.00	48	110	79.56	69.96	107.95	
Bx	1	(untitled)					1090	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		449	1800	45	0.00	64	57	46.02	34.02	82.91	
	2	(untitled)	1	1	A		418 <	1800	45	0.00	59	69	37.41	32.61	80.38	
Cx	1	(untitled)					522	Unrestricted	120	5.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		388	1800	35	0.00	70	43	80.00	44.00	92.41	
Dx	1	(untitled)					77	Unrestricted	120	76.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				867	Unrestricted	120	39.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				439	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	643.31	37.75	17.04	14.10	2.21	231.61	17.53	0.00	249.14
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	649.51	45.12	14.40	20.27	2.21	319.31	17.53	0.00	336.84

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - 2027 DO NOTHING
D5 - 2027 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:27:24	24/03/2022 17:27:25	08:00	120	332.92	22.24	72.61	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO NOTHING		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	10	10
B	1	373	373
	2	51	51
Bx	1	1065	1065
C	1	433	433
	2	401	401
Cx	1	511	511
D	1	403	403
Dx	1	79	79
9	1	834	834
10	1	424	424

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	30	2	802	0	0	0	0
	2	138	0	6	259	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	373	49	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	259
	7		2	1	D/1, Cx/1	Normal	138
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	401
	21		1	4	9/1, C/1, Bx/1	Normal	401
	43		1	2	9/1, C/1, Dx/1	Normal	30
	46		4	1	10/1, B/1, Cx/1	Normal	373
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	49

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

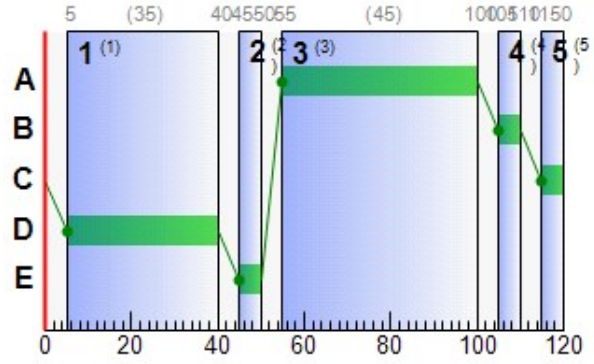
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

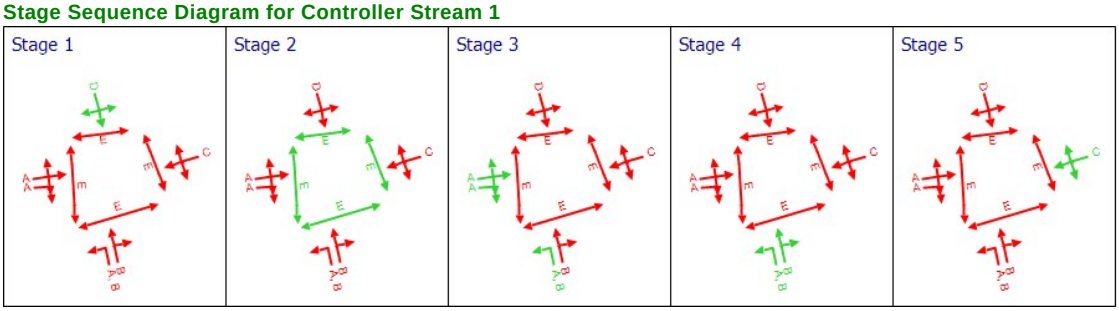
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2525	4	1800	5	54.35	0.13	0.91	0.86	0.05	0.90
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	46	117	373	1800	50	22.81	8.38	80.32	33.55	3.25	36.80
		2	49	106	51	1800	5	70.56	1.87	13.42	14.19	0.69	14.89
	Bx	1	0	Unrestricted	1065	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	61	63	433	1800	45	33.27	12.03	69.18	56.82	4.43	61.25
		2	57	76	401	1800	45	31.92	10.73	154.27	50.48	3.98	54.46
	Cx	1	0	Unrestricted	511	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	73	38	403	1800	35	45.40	12.81	24.55	72.17	4.75	76.92
	Dx	1	0	Unrestricted	79	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	834	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	424	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	105	4		2525	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	120
	B	1	373	373	0		1800	810	46		117	0.00	50
		2	51	51	0		1800	105	49		106	0.00	5
	Bx	1	1065	1065	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	C	1	433	433	0		1800	705	61		63	0.00	45
		2	401	401	0		1800	705	57		76	0.00	45
	Cx	1	511	511	0		Unrestricted	Unrestricted	0		Unrestricted	0.56	120
	D	1	403	403	0		1800	555	73		38	0.00	35
	Dx	1	79	79	0		Unrestricted	Unrestricted	0		Unrestricted	1.02	120
	9	1	834	834	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	424	424	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.35	0.06	0.00	0.86	93.75	3.73	0.02	0.05
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	22.81	2.17	0.20	33.55	69.39	247.15	11.66	3.25
		2	9.60	70.56	0.78	0.22	14.19	108.41	48.80	6.49	0.69
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	33.27	3.52	0.48	56.82	81.54	338.66	14.43	4.43
		2	4.80	31.92	3.18	0.37	50.48	79.12	306.17	11.11	3.98
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	45.40	4.14	0.94	72.17	94.08	351.36	27.77	4.75
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.91	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	8.38	10.43	80.32	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.87	13.91	13.42	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	12.03	17.39	69.18	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.73	6.96	154.27	0.55	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	5.00	0.00	5.00	
	D	1	0.00	12.81	52.17	24.55	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	76.00	0.00	76.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	34.00	34.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.50	63.95
	Ax	1	1.35	0.05	30.00	16.22
	B	1	22.38	3.11	7.20	30.01
		2	4.08	1.14	3.59	80.16
	Bx	1	252.93	8.43	30.00	28.50
	C	1	43.30	5.45	7.95	45.27
		2	16.04	4.09	3.92	36.72
	Cx	1	98.49	3.28	30.00	23.13
	D	1	120.90	9.11	13.27	81.40
	Dx	1	12.69	0.42	30.00	19.28
	9	1	44.94	1.50	30.00	6.47
	10	1	17.24	0.57	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.90
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.38	0.20	6.72	1.00	0.00	36.80
		2	0.00	0.00	✓	1.87	0.23	1.83	1.00	0.00	14.89
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	12.03	0.49	9.27	1.00	0.00	61.25
		2	0.00	0.00	✓	10.73	0.37	8.51	1.00	0.00	54.46
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	12.82	0.95	10.24	1.00	0.00	76.92
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:27:24	24/03/2022 17:27:25	08:00	120	332.92	22.24	72.61	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	73	0	4588	905	12.60	228.08	17.14	245.23

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4988	4988	0		73		38	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.12	16.05	20.02	2.22	315.78	27.41	1295.87	71.48	17.14

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	154.27	0.00	210.00	34.00	244.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	640.86	44.58	14.38

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	332.92

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	71.0	68.0	76.0	0.0	0.0	0.0	0.0
	2	104.5	0.0	97.6	109.9	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.5	0.0	0.0	0.0	0.0
	4	58.0	104.3	101.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		97.62		6	97.62
6	2	4	259		109.90		259	109.90
7	2	1	138		104.53		138	104.53
8	3	2	0		0.00		0	0.00
9	3	4	4		92.45		4	92.45
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		67.96		2	67.96
20	1	4	401		71.68		401	71.68
21	1	4	401		80.24		401	80.24
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	30		71.02		30	71.02
46	4	1	373		58.01		373	58.01
47	4	3	2		101.26		2	101.26
48	4	2	49		104.32		49	104.32
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	6.00	4	2525	63.95	54.35	93.75	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	373	1800	50	0.00	46	117	30.01	22.81	69.39	
	2	(untitled)	1	1	B		51	1800	5	3.00	49	106	80.16	70.56	108.41	
Bx	1	(untitled)					1065	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		433	1800	45	0.00	61	63	45.27	33.27	81.54	
	2	(untitled)	1	1	A		401 <	1800	45	0.00	57	76	36.72	31.92	79.12	
Cx	1	(untitled)					511	Unrestricted	120	5.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		403	1800	35	0.00	73	38	81.40	45.40	94.08	
Dx	1	(untitled)					79	Unrestricted	120	76.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				834	Unrestricted	120	34.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				424	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	634.66	37.22	17.05	13.84	2.22	228.08	17.14	0.00	245.23
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	640.86	44.58	14.38	20.02	2.22	315.78	17.14	0.00	332.92

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - 2027 DO SOMETHING
D6 - 2027 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	24/03/2022 17:27:25	24/03/2022 17:27:26	08:00	120	372.84	24.86	72.61	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO SOMETHING		D6	✓	

Demand Set Details

2027 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	10	10
B	1	434	434
	2	51	51
Bx	1	1195	1195
C	1	498	498
	2	466	466
Cx	1	572	572
D	1	403	403
Dx	1	79	79
9	1	964	964
10	1	485	485

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	30	2	932	0	0	0	0
	2	138	0	6	259	0	0	0	0
	3	0	0	0	4	0	0	0	0
	4	434	49	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	259
	7		2	1	D/1, Cx/1	Normal	138
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	466
	21		1	4	9/1, C/1, Bx/1	Normal	466
	43		1	2	9/1, C/1, Dx/1	Normal	30
	46		4	1	10/1, B/1, Cx/1	Normal	434
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	49

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

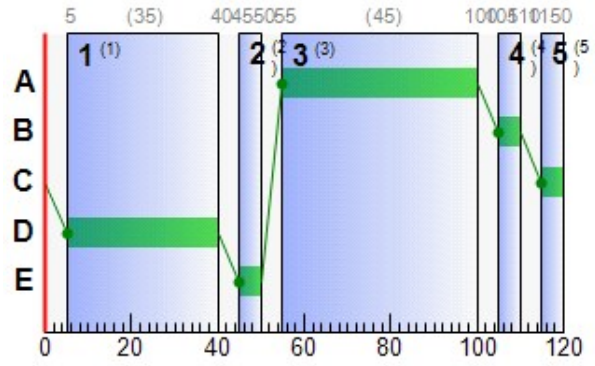
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

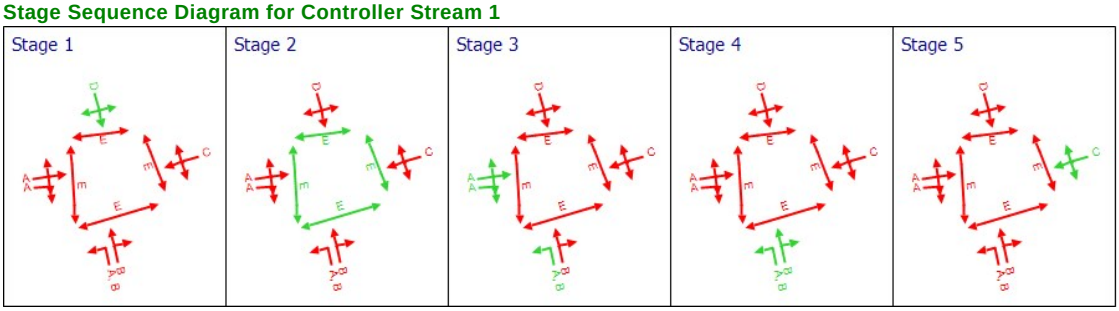
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	4	2525	4	1800	5	54.35	0.13	0.91	0.86	0.05	0.90
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	54	87	434	1800	50	24.40	10.19	97.69	41.76	3.98	45.74
		2	49	106	51	1800	5	70.56	1.87	13.42	14.19	0.69	14.89
	Bx	1	0	Unrestricted	1195	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	71	42	498	1800	45	36.75	14.67	84.36	72.19	5.44	77.63
		2	66	51	466	1800	45	34.89	13.32	191.52	64.13	4.93	69.06
	Cx	1	0	Unrestricted	572	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	73	38	403	1800	35	45.40	12.81	24.55	72.17	4.75	76.92
	Dx	1	0	Unrestricted	79	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	964	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	485	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	4	4	0		1800	105	4		2525	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	120
	B	1	434	434	0		1800	810	54		87	0.00	50
		2	51	51	0		1800	105	49		106	0.00	5
	Bx	1	1195	1195	0		Unrestricted	Unrestricted	0		Unrestricted	0.68	120
	C	1	498	498	0		1800	705	71		42	0.00	45
		2	466	466	0		1800	705	66		51	0.00	45
	Cx	1	572	572	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120
	D	1	403	403	0		1800	555	73		38	0.00	35
	Dx	1	79	79	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	120
	9	1	964	964	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	485	485	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.35	0.06	0.00	0.86	93.75	3.73	0.02	0.05
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	24.40	2.63	0.31	41.76	73.14	299.14	18.28	3.98
		2	9.60	70.56	0.78	0.22	14.19	108.41	48.80	6.49	0.69
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	36.75	4.25	0.84	72.19	87.05	408.73	24.80	5.44
		2	4.80	34.89	3.88	0.64	64.13	84.32	374.02	18.93	4.93
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	45.40	4.14	0.94	72.17	94.08	351.36	27.77	4.75
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.13	13.91	0.91	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	10.19	10.43	97.69	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	1.87	13.91	13.42	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	14.67	17.39	84.36	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	13.32	6.96	191.52	1.33	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	5.00	0.00	5.00	
	D	1	0.00	12.81	52.17	24.55	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	73.00	0.00	73.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	50.00	50.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.32	0.07	4.50	63.95
	Ax	1	1.35	0.05	30.00	16.22
	B	1	26.04	3.81	6.84	31.60
		2	4.08	1.14	3.59	80.16
	Bx	1	283.80	9.46	30.00	28.50
	C	1	49.80	6.74	7.38	48.75
		2	18.64	5.14	3.63	39.69
	Cx	1	110.24	3.67	30.00	23.13
	D	1	120.90	9.11	13.27	81.40
	Dx	1	12.69	0.42	30.00	19.28
	9	1	51.95	1.73	30.00	6.47
	10	1	19.72	0.66	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.90
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	10.19	0.31	7.90	1.00	0.00	45.74
		2	0.00	0.00	✓	1.87	0.23	1.83	1.00	0.00	14.89
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	14.68	0.84	10.94	1.00	0.00	77.63
		2	0.00	0.00	✓	13.33	0.64	10.09	1.00	0.00	69.06
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	12.82	0.95	10.24	1.00	0.00	76.92
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	24/03/2022 17:27:25	24/03/2022 17:27:26	08:00	120	372.84	24.86	72.61	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	73	0	5161	905	13.03	265.30	19.84	285.14

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5561	5561	0		73		38	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.86	16.09	21.91	2.95	353.00	28.45	1485.78	96.29	19.84

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	191.52	0.00	207.00	50.00	257.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	705.73	49.36	14.30

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	372.84

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	74.5	71.4	79.2	0.0	0.0	0.0	0.0
	2	104.5	0.0	97.6	109.9	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.5	0.0	0.0	0.0	0.0
	4	59.6	104.3	101.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		97.62		6	97.62
6	2	4	259		109.90		259	109.90
7	2	1	138		104.53		138	104.53
8	3	2	0		0.00		0	0.00
9	3	4	4		92.45		4	92.45
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		71.44		2	71.44
20	1	4	466		74.65		466	74.65
21	1	4	466		83.72		466	83.72
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	30		74.50		30	74.50
46	4	1	434		59.60		434	59.60
47	4	3	2		101.26		2	101.26
48	4	2	49		104.32		49	104.32
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	6.00	4	2525	63.95	54.35	93.75	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	434	1800	50	0.00	54	87	31.60	24.40	73.14	
	2	(untitled)	1	1	B		51	1800	5	3.00	49	106	80.16	70.56	108.41	
Bx	1	(untitled)					1195	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		498	1800	45	0.00	71	42	48.75	36.75	87.05	
	2	(untitled)	1	1	A		466 <	1800	45	0.00	66	51	39.69	34.89	84.32	
Cx	1	(untitled)					572	Unrestricted	120	5.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		403	1800	35	0.00	73	38	81.40	45.40	94.08	
Dx	1	(untitled)					79	Unrestricted	120	73.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				964	Unrestricted	120	50.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				485	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	699.53	42.00	16.66	15.73	2.95	265.30	19.84	0.00	285.14
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	705.73	49.36	14.30	21.91	2.95	353.00	19.84	0.00	372.84

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - 2032 DO NOTHING
D7 - 2032 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	24/03/2022 17:27:26	24/03/2022 17:27:26	08:00	120	355.49	23.73	76.40	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO NOTHING		D7	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	10	10
B	1	396	396
	2	54	54
Bx	1	1121	1121
C	1	456	456
	2	422	422
Cx	1	541	541
D	1	424	424
Dx	1	84	84
9	1	877	877
10	1	450	450

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	32	2	843	0	0	0	0
	2	145	0	6	273	0	0	0	0
	3	0	0	0	5	0	0	0	0
	4	396	52	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	273
	7		2	1	D/1, Cx/1	Normal	145
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	5
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	422
	21		1	4	9/1, C/1, Bx/1	Normal	422
	43		1	2	9/1, C/1, Dx/1	Normal	32
	46		4	1	10/1, B/1, Cx/1	Normal	396
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	52

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

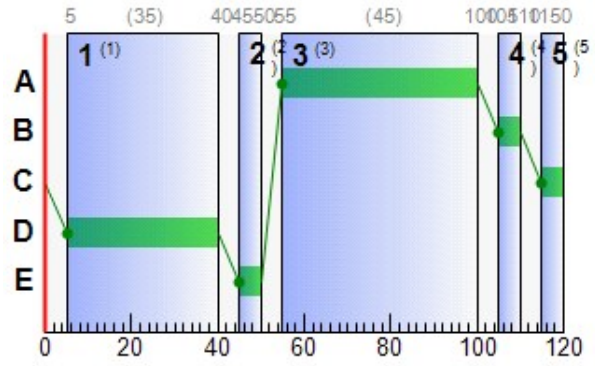
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

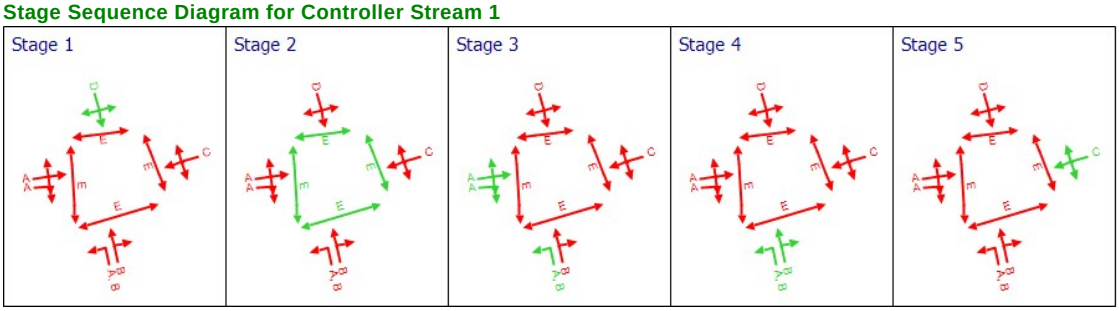
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	5	2000	5	1800	5	54.53	0.16	1.14	1.08	0.06	1.13
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	49	105	396	1800	50	23.37	9.03	86.57	36.51	3.51	40.02
		2	51	94	54	1800	5	72.50	2.00	14.41	15.44	0.74	16.19
	Bx	1	0	Unrestricted	1122	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	65	55	456	1800	45	34.37	12.87	74.02	61.82	4.77	66.59
		2	60	67	422	1800	45	32.79	11.58	166.45	54.58	4.28	58.85
	Cx	1	0	Unrestricted	541	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	76	31	424	1800	35	47.74	13.92	26.68	79.85	5.16	85.01
	Dx	1	0	Unrestricted	84	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	878	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	450	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	5	5	0		1800	105	5		2000	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120
	B	1	396	396	0		1800	810	49		105	0.00	50
		2	54	54	0		1800	105	51		94	0.00	5
	Bx	1	1122	1122	-1		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	C	1	456	456	-1		1800	705	65		55	0.00	45
		2	422	422	-1		1800	705	60		67	0.00	45
	Cx	1	541	541	0		Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	D	1	424	424	0		1800	555	76		31	0.00	35
	Dx	1	84	84	0		Unrestricted	Unrestricted	0		Unrestricted	1.01	120
	9	1	878	878	-1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	450	450	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.53	0.07	0.00	1.08	93.89	4.66	0.04	0.06
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	23.37	2.34	0.23	36.51	70.70	266.11	13.86	3.51
		2	9.60	72.50	0.82	0.26	15.44	109.83	51.67	7.64	0.74
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	34.37	3.77	0.59	61.82	83.39	362.85	17.42	4.77
		2	4.80	32.79	3.40	0.44	54.58	80.86	328.04	13.19	4.28
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	47.74	4.42	1.20	79.85	97.01	376.07	35.26	5.16
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.16	13.91	1.14	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	9.03	10.43	86.57	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	2.00	13.91	14.41	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	12.87	17.39	74.02	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	11.58	6.96	166.45	0.78	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	13.92	52.17	26.68	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	74.00	0.00	74.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	40.00	40.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.40	0.09	4.49	64.13
	Ax	1	1.35	0.05	30.00	16.22
	B	1	23.76	3.36	7.07	30.57
		2	4.32	1.23	3.51	82.10
	Bx	1	266.47	8.88	30.00	28.50
	C	1	45.60	5.87	7.76	46.37
		2	16.88	4.41	3.83	37.59
	Cx	1	104.27	3.48	30.00	23.13
	D	1	127.20	9.86	12.90	83.74
	Dx	1	13.50	0.45	30.00	19.28
	9	1	47.31	1.58	30.00	6.47
	10	1	18.29	0.61	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.13
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	9.03	0.23	7.16	1.00	0.00	40.02
		2	0.00	0.00	✓	2.01	0.27	1.96	1.00	0.00	16.19
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	12.88	0.59	9.84	1.00	0.00	66.59
		2	0.00	0.00	✓	11.58	0.44	9.00	1.00	0.00	58.85
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	13.94	1.22	10.99	1.00	0.00	85.01
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	24/03/2022 17:27:26	24/03/2022 17:27:26	08:00	120	355.49	23.73	76.40	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	76	0	4842	905	13.05	249.27	18.52	267.79

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5242	5242	-3		76		31	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.14	16.30	21.00	2.73	336.97	28.17	1389.40	87.41	18.52

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	166.45	0.00	207.00	40.00	247.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	675.55	47.23	14.30

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	355.49

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	72.1	69.1	76.9	0.0	0.0	0.0	0.0
	2	106.9	0.0	100.0	112.2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.6	0.0	0.0	0.0	0.0
	4	58.6	106.3	103.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		99.97		6	99.97
6	2	4	273		112.24		273	112.24
7	2	1	145		106.87		145	106.87
8	3	2	0		0.00		0	0.00
9	3	4	5		92.63		5	92.63
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		69.06		2	69.06
20	1	4	422		72.55		422	72.55
21	1	4	422		81.34		422	81.34
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	32		72.11		32	72.11
46	4	1	396		58.58		396	58.58
47	4	3	2		103.20		2	103.20
48	4	2	52		106.26		52	106.26
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	6.00	5	2000	64.13	54.53	93.89	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	396	1800	50	0.00	49	105	30.57	23.37	70.70	
	2	(untitled)	1	1	B		54	1800	5	3.00	51	94	82.10	72.50	109.83	
Bx	1	(untitled)					1122	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		456	1800	45	0.00	65	55	46.37	34.37	83.39	
	2	(untitled)	1	1	A		422 <	1800	45	0.00	60	67	37.59	32.79	80.86	
Cx	1	(untitled)					541	Unrestricted	120	4.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		424	1800	35	0.00	76	31	83.74	47.74	97.01	
Dx	1	(untitled)					84	Unrestricted	120	74.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				878	Unrestricted	120	40.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				450	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	669.35	39.87	16.79	14.83	2.73	249.27	18.52	0.00	267.79
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	675.55	47.23	14.30	21.00	2.73	336.97	18.52	0.00	355.49

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A8 - 2032 DO SOMETHING
D8 - 2032 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	24/03/2022 17:27:27	24/03/2022 17:27:27	08:00	120	398.21	26.54	76.40	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO SOMETHING		D8	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	10	10
B	1	454	454
	2	54	54
Bx	1	1251	1251
C	1	521	521
	2	487	487
Cx	1	599	599
D	1	424	424
Dx	1	84	84
9	1	1007	1007
10	1	508	508

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	32	2	973	0	0	0	0
	2	145	0	6	273	0	0	0	0
	3	0	0	0	5	0	0	0	0
	4	454	52	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	273
	7		2	1	D/1, Cx/1	Normal	145
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	5
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	487
	21		1	4	9/1, C/1, Bx/1	Normal	487
	43		1	2	9/1, C/1, Dx/1	Normal	32
	46		4	1	10/1, B/1, Cx/1	Normal	454
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	52

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

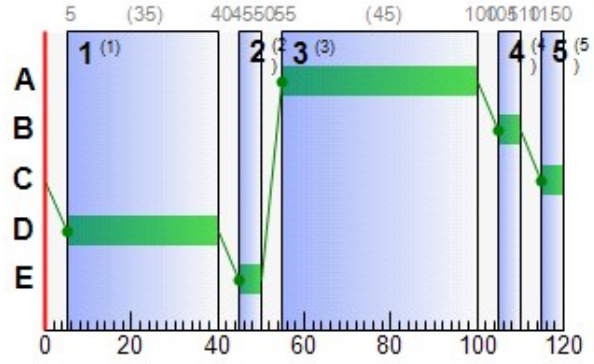
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

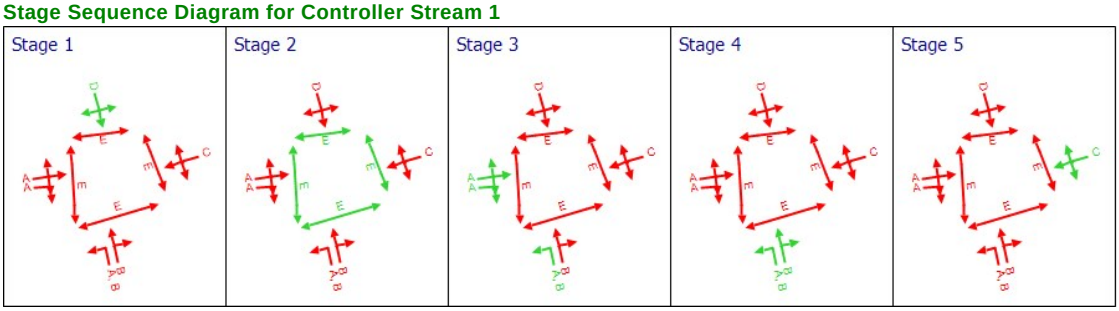
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
	A	1	5	2000	5	1800	5	54.53	0.16	1.14	1.08	0.06	1.13
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		1	56	78	454	1800	50	24.99	10.95	104.93	44.75	4.26	49.00
08:00-09:00	Bx	1	0	Unrestricted	1252	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	74	35	521	1800	45	38.34	15.79	90.78	78.80	5.84	84.64
		2	69	45	487	1800	45	36.07	14.29	205.41	69.29	5.25	74.54
	Cx	1	0	Unrestricted	599	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	76	31	424	1800	35	47.74	13.92	26.68	79.85	5.16	85.01
	Dx	1	0	Unrestricted	84	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	1008	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	508	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	5	5	0		1800	105	5		2000	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120
	B	1	454	454	0		1800	810	56		78	0.00	50
		2	54	54	0		1800	105	51		94	0.00	5
	Bx	1	1252	1252	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.67	120
	C	1	521	521	-1	✓	1800	705	74		35	0.00	45
		2	487	487	-1	✓	1800	705	69		45	0.00	45
	Cx	1	599	599	0		Unrestricted	Unrestricted	0		Unrestricted	0.56	120
	D	1	424	424	0		1800	555	76		31	0.00	35
	Dx	1	84	84	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	120
	9	1	1008	1008	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	508	508	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.53	0.07	0.00	1.08	93.89	4.66	0.04	0.06
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	24.99	2.80	0.36	44.75	74.77	318.36	21.09	4.26
		2	9.60	72.50	0.82	0.26	15.44	109.83	51.67	7.64	0.74
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	38.34	4.52	1.03	78.80	89.46	435.76	30.35	5.84
		2	4.80	36.07	4.12	0.76	69.29	86.03	396.40	22.58	5.25
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	47.74	4.42	1.20	79.85	97.01	376.07	35.26	5.16
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.16	13.91	1.14	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	10.95	10.43	104.93	0.01	0.00	0.00	0.00	0.00	0.00	
		2	0.00	2.00	13.91	14.41	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	15.79	17.39	90.78	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	14.29	6.96	205.41	1.69	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	13.92	52.17	26.68	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	71.00	0.00	71.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	55.00	55.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	5.00	5.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.40	0.09	4.49	64.13
	Ax	1	1.35	0.05	30.00	16.22
	B	1	27.24	4.06	6.71	32.19
		2	4.32	1.23	3.51	82.10
	Bx	1	297.34	9.91	30.00	28.50
	C	1	52.10	7.29	7.15	50.34
		2	19.48	5.53	3.52	40.87
	Cx	1	115.45	3.85	30.00	23.13
	D	1	127.20	9.86	12.90	83.74
	Dx	1	13.50	0.45	30.00	19.28
	9	1	54.32	1.81	30.00	6.47
	10	1	20.65	0.69	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.13
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	10.95	0.36	8.30	1.00	0.00	49.00
		2	0.00	0.00	✓	2.01	0.27	1.96	1.00	0.00	16.19
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	15.80	1.04	11.60	1.00	0.00	84.64
		2	0.00	0.00	✓	14.29	0.77	10.64	1.00	0.00	74.54
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	13.94	1.22	10.99	1.00	0.00	85.01
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	24/03/2022 17:27:27	24/03/2022 17:27:27	08:00	120	398.21	26.54	76.40	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	76	0	5406	905	13.56	289.20	21.31	310.52

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5806	5806	-3	✓	76		31	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.89	16.46	22.93	3.61	376.90	29.28	1582.92	116.95	21.31

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	205.41	0.00	204.00	60.00	264.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	739.54	52.17	14.18

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	398.21

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	76.1	73.0	80.6	0.0	0.0	0.0	0.0
	2	106.9	0.0	100.0	112.2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.6	0.0	0.0	0.0	0.0
	4	60.2	106.3	103.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		99.97		6	99.97
6	2	4	273		112.24		273	112.24
7	2	1	145		106.87		145	106.87
8	3	2	0		0.00		0	0.00
9	3	4	5		92.63		5	92.63
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		73.03		2	73.03
20	1	4	487		75.83		487	75.83
21	1	4	487		85.31		487	85.31
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	32		76.09		32	76.09
46	4	1	454		60.19		454	60.19
47	4	3	2		103.20		2	103.20
48	4	2	52		106.26		52	106.26
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	6.00	5	2000	64.13	54.53	93.89	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	454 <	1800	50	0.00	56	78	32.19	24.99	74.77	
	2	(untitled)	1	1	B		54	1800	5	3.00	51	94	82.10	72.50	109.83	
Bx	1	(untitled)					1252	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		521	1800	45	0.00	74	35	50.34	38.34	89.46	
	2	(untitled)	1	1	A		487 <	1800	45	0.00	69	45	40.87	36.07	86.03	
Cx	1	(untitled)					599	Unrestricted	120	4.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		424	1800	35	0.00	76	31	83.74	47.74	97.01	
Dx	1	(untitled)					84	Unrestricted	120	71.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				1008	Unrestricted	120	55.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				508	Unrestricted	120	5.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	733.34	44.81	16.37	16.76	3.61	289.20	21.31	0.00	310.52
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	739.54	52.17	14.18	22.93	3.61	376.90	21.31	0.00	398.21

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A9 - 2042 DO NOTHING
D9 - 2042 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	24/03/2022 17:27:28	24/03/2022 17:27:28	08:00	120	370.71	24.74	78.92	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO NOTHING		D9	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	10	10
B	1	405	405
	2	56	56
Bx	1	1158	1158
C	1	471	471
	2	436	436
Cx	1	555	555
D	1	438	438
Dx	1	87	87
9	1	906	906
10	1	461	461

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	33	2	871	0	0	0	0
	2	150	0	6	282	0	0	0	0
	3	0	0	0	5	0	0	0	0
	4	405	54	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	282
	7		2	1	D/1, Cx/1	Normal	150
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	5
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	436
	21		1	4	9/1, C/1, Bx/1	Normal	436
	43		1	2	9/1, C/1, Dx/1	Normal	33
	46		4	1	10/1, B/1, Cx/1	Normal	405
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	54

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

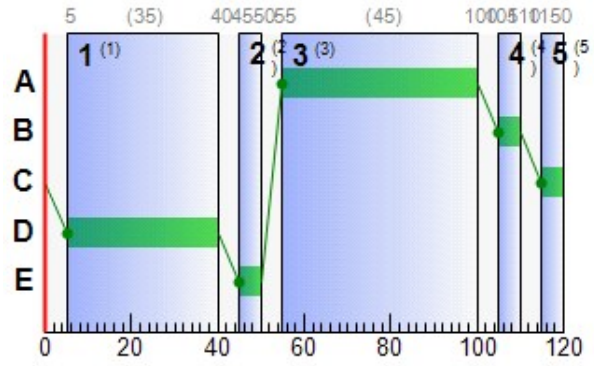
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

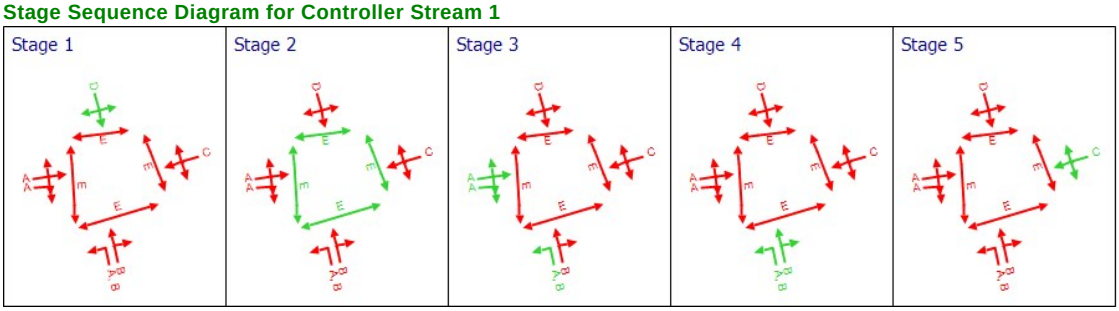
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	5	2000	5	1800	5	54.53	0.16	1.14	1.08	0.06	1.13
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	50	100	405	1800	50	23.61	9.36	89.72	37.71	3.63	41.34
		2	53	88	56	1800	5	73.90	2.10	15.09	16.32	0.78	17.10
	Bx	1	0	Unrestricted	1159	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	67	50	471	1800	45	35.16	13.49	77.55	65.31	5.00	70.31
		2	62	62	436	1800	45	33.41	12.12	174.28	57.46	4.48	61.93
	Cx	1	0	Unrestricted	555	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	79	27	438	1800	35	49.64	14.69	28.15	85.76	5.44	91.20
	Dx	1	0	Unrestricted	87	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	907	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	461	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	5	5	0		1800	105	5		2000	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	120
	B	1	405	405	0		1800	810	50		100	0.00	50
		2	56	56	0		1800	105	53		88	0.00	5
	Bx	1	1159	1159	-1		Unrestricted	Unrestricted	0		Unrestricted	0.63	120
	C	1	471	471	-1		1800	705	67		50	0.00	45
		2	436	436	-1		1800	705	62		62	0.00	45
	Cx	1	555	555	0		Unrestricted	Unrestricted	0		Unrestricted	0.54	120
	D	1	438	438	0		1800	555	79		27	0.00	35
	Dx	1	87	87	0		Unrestricted	Unrestricted	0		Unrestricted	1.00	120
	9	1	907	907	-1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	461	461	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.53	0.07	0.00	1.08	93.89	4.66	0.04	0.06
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	23.61	2.41	0.25	37.71	71.43	274.49	14.81	3.63
		2	9.60	73.90	0.85	0.29	16.32	110.87	53.58	8.50	0.78
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	35.16	3.93	0.66	65.31	84.61	378.79	19.73	5.00
		2	4.80	33.41	3.55	0.50	57.46	81.93	342.43	14.79	4.48
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	49.64	4.62	1.42	85.76	99.08	392.29	41.68	5.44
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.16	13.91	1.14	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	9.36	10.43	89.72	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	2.10	13.91	15.09	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	13.49	17.39	77.55	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	12.12	6.96	174.28	0.94	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	14.69	52.17	28.15	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	71.00	0.00	71.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	43.00	43.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.40	0.09	4.49	64.13
	Ax	1	1.35	0.05	30.00	16.22
	B	1	24.30	3.47	7.01	30.81
		2	4.48	1.30	3.45	83.50
	Bx	1	275.25	9.18	30.00	28.50
	C	1	47.10	6.17	7.63	47.16
		2	17.44	4.63	3.77	38.21
	Cx	1	106.97	3.57	30.00	23.13
	D	1	131.40	10.42	12.61	85.64
	Dx	1	13.98	0.47	30.00	19.28
	9	1	48.87	1.63	30.00	6.47
	10	1	18.74	0.62	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.13
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	9.36	0.25	7.34	1.00	0.00	41.34
		2	0.00	0.00	✓	2.10	0.30	2.06	1.00	0.00	17.10
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	13.49	0.67	10.22	1.00	0.00	70.31
		2	0.00	0.00	✓	12.13	0.50	9.34	1.00	0.00	61.93
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	14.71	1.45	11.55	1.00	0.00	91.20
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	24/03/2022 17:27:28	24/03/2022 17:27:28	08:00	120	370.71	24.74	78.92	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	79	0	4990	905	13.39	263.63	19.38	283.02

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5390	5390	-3		79		27	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.16	16.53	21.61	3.13	351.33	28.68	1446.25	99.55	19.38

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	174.28	0.00	203.00	43.00	246.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	696.49	48.94	14.23

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	370.71

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	72.9	69.8	77.6	0.0	0.0	0.0	0.0
	2	108.8	0.0	101.9	114.1	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.6	0.0	0.0	0.0	0.0
	4	58.8	107.7	104.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		101.86		6	101.86
6	2	4	282		114.14		282	114.14
7	2	1	150		108.77		150	108.77
8	3	2	0		0.00		0	0.00
9	3	4	5		92.63		5	92.63
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		69.85		2	69.85
20	1	4	436		73.17		436	73.17
21	1	4	436		82.12		436	82.12
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	33		72.90		33	72.90
46	4	1	405		58.81		405	58.81
47	4	3	2		104.60		2	104.60
48	4	2	54		107.65		54	107.65
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	6.00	5	2000	64.13	54.53	93.89	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	405	1800	50	0.00	50	100	30.81	23.61	71.43	
	2	(untitled)	1	1	B		56	1800	5	3.00	53	88	83.50	73.90	110.87	
Bx	1	(untitled)					1159	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		471	1800	45	0.00	67	50	47.16	35.16	84.61	
	2	(untitled)	1	1	A		436 <	1800	45	0.00	62	62	38.21	33.41	81.93	
Cx	1	(untitled)					555	Unrestricted	120	3.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		438	1800	35	0.00	79	27	85.64	49.64	99.08	
Dx	1	(untitled)					87	Unrestricted	120	71.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				907	Unrestricted	120	43.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				461	Unrestricted	120	0.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	690.29	41.58	16.60	15.44	3.13	263.63	19.38	0.00	283.02
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	696.49	48.94	14.23	21.61	3.13	351.33	19.38	0.00	370.71

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A10 - 2042 DO SOMETHING
D10 - 2042 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	24/03/2022 17:27:28	24/03/2022 17:27:29	08:00	120	416.54	27.76	78.92	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO SOMETHING		D10	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	10	10
B	1	467	467
	2	56	56
Bx	1	1288	1288
C	1	536	536
	2	501	501
Cx	1	617	617
D	1	438	438
Dx	1	87	87
9	1	1036	1036
10	1	523	523

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	33	2	1001	0	0	0	0
	2	150	0	6	282	0	0	0	0
	3	0	0	0	5	0	0	0	0
	4	467	54	2	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	6
	6		2	4	D/1, Bx/1	Normal	282
	7		2	1	D/1, Cx/1	Normal	150
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	5
	10		3	1	A/1, Cx/1	Normal	0
	19		1	3	9/1, C/1, Ax/1	Normal	2
	20		1	4	9/1, C/2, Bx/1	Normal	501
	21		1	4	9/1, C/1, Bx/1	Normal	501
	43		1	2	9/1, C/1, Dx/1	Normal	33
	46		4	1	10/1, B/1, Cx/1	Normal	467
	47		4	3	10/1, B/2, Ax/1	Normal	2
	48		4	2	10/1, B/2, Dx/1	Normal	54

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	45	55	2	3	Traffic	
	B	(untitled)	5	70	2	3	Traffic	
	C	(untitled)	5	70	2	3	Traffic	
	D	(untitled)	35	70	2	3	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	D	1
	2	E	1
	3	A	1
	4	B	1
	5	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	40, 50, 100, 110, 0

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	D	5	40	35	1	35
	2	✓	2	E	45	50	5	1	5
	3	✓	3	A	55	100	45	1	45
	4	✓	4	B	105	110	5	1	5
	5	✓	5	C	115	0	5	1	5

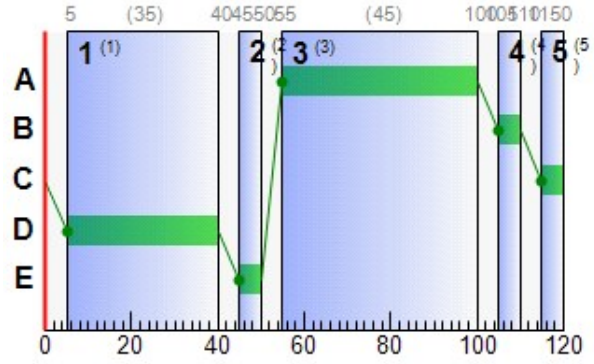
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	55	100	45
	B	1	✓	105	110	5
	C	1	✓	115	0	5
	D	1	✓	5	40	35
	E	1	✓	45	50	5

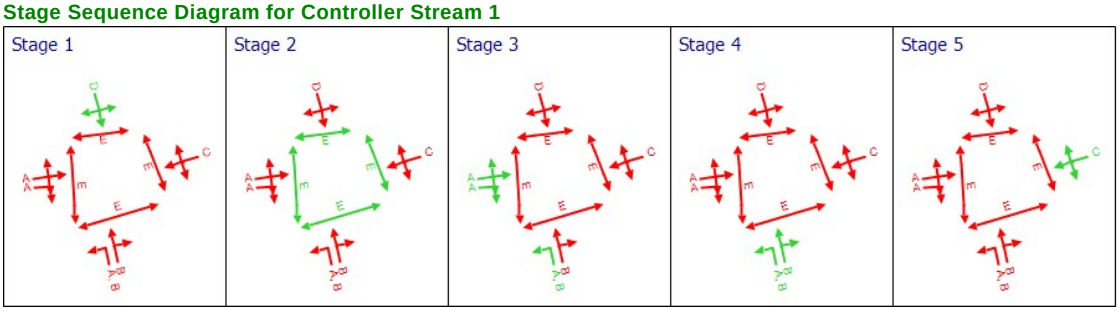
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	115	0	5
B	1	1	1	A	55	100	45
B	2	1	1	B	105	110	5
C	1	1	1	A	55	100	45
C	2	1	1	A	55	100	45
D	1	1	1	D	5	40	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	5	2000	5	1800	5	54.53	0.16	1.14	1.08	0.06	1.13
	Ax	1	0	Unrestricted	10	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	58	73	467	1800	50	25.39	11.42	109.41	46.77	4.43	51.20
		2	53	88	56	1800	5	73.90	2.10	15.09	16.32	0.78	17.10
	Bx	1	0	Unrestricted	1289	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	76	32	536	1800	45	39.54	16.51	94.96	83.59	6.12	89.71
		2	71	41	501	1800	45	36.94	14.92	214.41	73.01	5.49	78.50
	Cx	1	0	Unrestricted	617	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	79	27	438	1800	35	49.64	14.69	28.15	85.76	5.44	91.20
	Dx	1	0	Unrestricted	87	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	1037	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	523	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	5	5	0		1800	105	5		2000	0.00	5
	Ax	1	10	10	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	120
	B	1	467	467	0		1800	810	58		73	0.00	50
		2	56	56	0		1800	105	53		88	0.00	5
	Bx	1	1289	1289	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.67	120
	C	1	536	536	-1	✓	1800	705	76		32	0.00	45
		2	501	501	-1	✓	1800	705	71		41	0.00	45
	Cx	1	617	617	0		Unrestricted	Unrestricted	0		Unrestricted	0.56	120
	D	1	438	438	0		1800	555	79		27	0.00	35
	Dx	1	87	87	0		Unrestricted	Unrestricted	0		Unrestricted	0.97	120
	9	1	1037	1037	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	523	523	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	9.60	54.53	0.07	0.00	1.08	93.89	4.66	0.04	0.06
	Ax	1	16.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	25.39	2.90	0.39	46.77	75.66	330.22	23.13	4.43
		2	9.60	73.90	0.85	0.29	16.32	110.87	53.58	8.50	0.78
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	39.54	4.71	1.18	83.59	91.03	453.12	34.78	6.12
		2	4.80	36.94	4.28	0.86	73.01	87.41	412.45	25.45	5.49
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	49.64	4.62	1.42	85.76	99.08	392.29	41.68	5.44
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.16	13.91	1.14	0.00	0.00	0.00	6.00	0.00	6.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	11.42	10.43	109.41	0.04	0.00	0.00	0.00	0.00	0.00	
		2	0.00	2.10	13.91	15.09	0.00	0.00	0.00	3.00	0.00	3.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	0.00	16.51	17.39	94.96	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	14.92	6.96	214.41	1.93	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	14.69	52.17	28.15	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	68.00	0.00	68.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	58.00	58.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	8.00	8.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	0.40	0.09	4.49	64.13
	Ax	1	1.35	0.05	30.00	16.22
	B	1	28.02	4.23	6.63	32.59
		2	4.48	1.30	3.45	83.50
	Bx	1	306.13	10.20	30.00	28.50
	C	1	53.60	7.67	6.99	51.54
		2	20.04	5.81	3.45	41.74
	Cx	1	118.92	3.96	30.00	23.13
	D	1	131.40	10.42	12.61	85.64
	Dx	1	13.98	0.47	30.00	19.28
	9	1	55.88	1.86	30.00	6.47
	10	1	21.26	0.71	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.13
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	11.42	0.39	8.56	1.00	0.00	51.20
		2	0.00	0.00	✓	2.10	0.30	2.06	1.00	0.00	17.10
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	16.53	1.19	12.06	1.00	0.00	89.71
		2	0.00	0.00	✓	14.92	0.87	11.03	1.00	0.00	78.50
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	14.71	1.45	11.55	1.00	0.00	91.20
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	24/03/2022 17:27:28	24/03/2022 17:27:29	08:00	120	416.54	27.76	78.92	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	79	0	5566	905	13.96	306.53	22.32	328.84

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5966	5966	-3	✓	79		27	945

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	15.91	16.75	23.61	4.15	394.22	29.83	1646.33	133.58	22.32

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	214.41	0.00	200.00	66.00	266.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	761.65	54.13	14.07

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	416.54

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	77.3	74.2	81.6	0.0	0.0	0.0	0.0
	2	108.8	0.0	101.9	114.1	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	92.6	0.0	0.0	0.0	0.0
	4	60.6	107.7	104.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	6		101.86		6	101.86
6	2	4	282		114.14		282	114.14
7	2	1	150		108.77		150	108.77
8	3	2	0		0.00		0	0.00
9	3	4	5		92.63		5	92.63
10	3	1	0		0.00		0	0.00
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	2		74.23		2	74.23
20	1	4	501		76.71		501	76.71
21	1	4	501		86.50		501	86.50
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	33		77.28		33	77.28
46	4	1	467		60.60		467	60.60
47	4	3	2		104.60		2	104.60
48	4	2	54		107.65		54	107.65
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	6.00	5	2000	64.13	54.53	93.89	
Ax	1	(untitled)					10	Unrestricted	120	120.00	0	Unrestricted	16.22	0.00	0.00	
B	1	(untitled)	1	1	A	B	467 <	1800	50	0.00	58	73	32.59	25.39	75.66	
	2	(untitled)	1	1	B		56	1800	5	3.00	53	88	83.50	73.90	110.87	
Bx	1	(untitled)					1289	Unrestricted	120	0.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		536	1800	45	0.00	76	32	51.54	39.54	91.03	
	2	(untitled)	1	1	A		501 <	1800	45	0.00	71	41	41.74	36.94	87.41	
Cx	1	(untitled)					617	Unrestricted	120	3.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		438	1800	35	0.00	79	27	85.64	49.64	99.08	
Dx	1	(untitled)					87	Unrestricted	120	68.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				1037	Unrestricted	120	58.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				523	Unrestricted	120	8.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	755.45	46.77	16.15	17.44	4.15	306.53	22.32	0.00	328.84
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	761.65	54.13	14.07	23.61	4.15	394.22	22.32	0.00	416.54

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 15

Version: 15.5.2.7994

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 3 - PM - Current Layout.t16
Path: \\wmfilesvr\Moylan\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 3\Current Layout
Report generation date: 24/03/2022 17:38:31

»A1 - 2019 SURVEYED FLOWS : D1 - 2019 SURVEYED FLOWS, * :
»A2 - 2023 DO NOTHING : D2 - 2023 DO NOTHING, * :
»A3 - 2023 DO SOMETHING : D3 - 2023 DO SOMETHING, * :
»A4 - 2025 DO NOTHING : D4 - 2025 DO NOTHING, * :
»A5 - 2025 DO SOMETHING : D5 - 2025 DO SOMETHING, * :

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

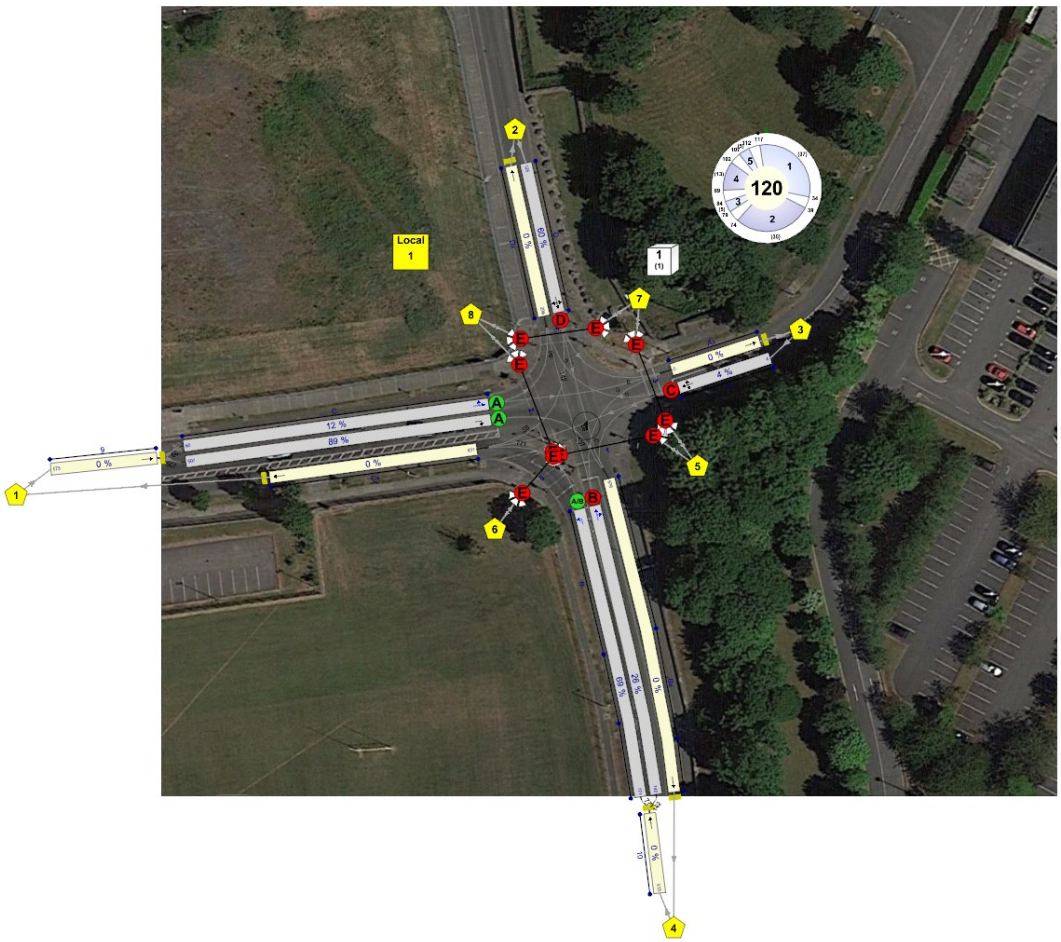
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



(untitled)
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2019 SURVEYED FLOWS
D1 - 2019 SURVEYED FLOWS, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:38:14	24/03/2022 17:38:14	17:00	120	310.79	20.96	75.09	C/2	0	0	C/2	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2019 SURVEYED FLOWS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2019 SURVEYED FLOWS,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.34						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	239.09						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	195.68						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	161.30						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	649	649
	2	129	129
Bx	1	491	491
C	1	60	60
	2	428	428
Cx	1	704	704
D	1	114	114
Dx	1	189	189
9	1	488	488
10	1	778	778

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.69	30.00	✓	Nearside	36.07
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.48	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.36	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.00	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.69	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.48	30.00	✓	Nearside	41.58
Dx	1	2	A/1	Dx/1	19.36	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.00	30.00	✓	Offside	57.82
Bx	1	3	C/2	Bx/1	28.69	30.00	✓	Offside	43.48
Cx	1	3	D/1	Cx/1	23.48	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.36	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	60	0	428	0	0	0	0
	2	54	0	0	60	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	649	129	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	60
	7		2	1	D/1, Cx/1	Normal	54
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	428
	43		1	2	9/1, C/1, Dx/1	Normal	60
	46		4	1	10/1, B/1, Cx/1	Normal	649
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	129

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

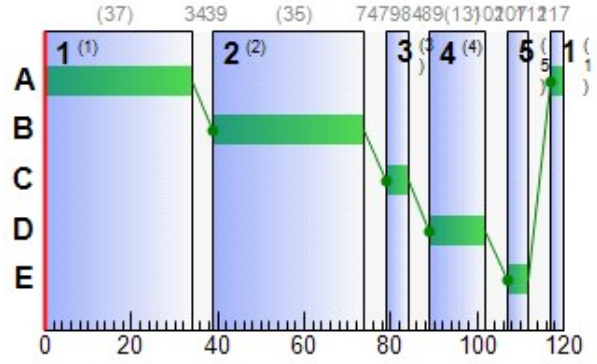
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

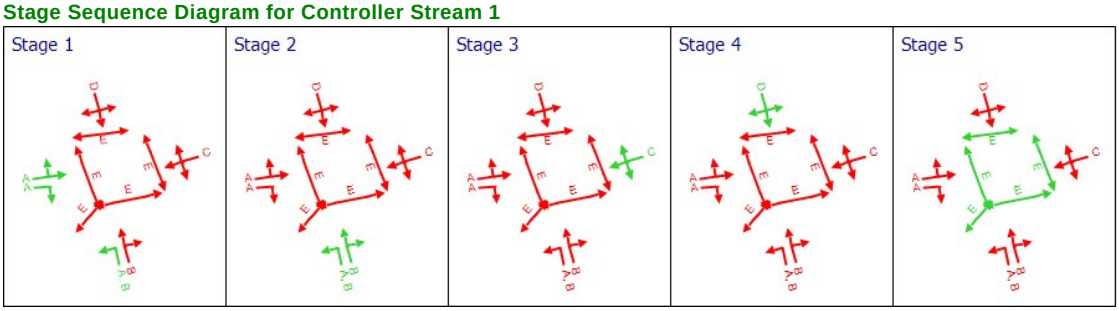
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	58	71	649	1800	72	13.87	12.13	116.23	35.52	4.85	40.37
		2	24	319	129	1800	35	32.73	3.26	23.45	16.65	1.21	17.86
	Bx	1	0	Unrestricted	491	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	11	850	60	1800	37	29.37	1.41	8.09	6.95	0.52	7.47
		2	75	33	428	1800	37	46.04	13.82	198.72	77.72	5.12	82.84
	Cx	1	0	Unrestricted	704	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	54	84	114	1800	13	59.99	3.89	7.47	26.98	1.45	28.42
	Dx	1	0	Unrestricted	189	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	488	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	778	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	649	649	0		1800	1110	58		71	0.00	72
		2	129	129	0		1800	540	24		319	0.00	35
	Bx	1	491	491	0		Unrestricted	Unrestricted	0		Unrestricted	0.95	120
	C	1	60	60	0		1800	570	11		850	0.00	37
		2	428	428	0		1800	570	75		33	0.00	37
	Cx	1	704	704	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	114	114	0		1800	210	54		84	0.00	13
	Dx	1	189	189	0		Unrestricted	Unrestricted	0		Unrestricted	0.96	120
	9	1	488	488	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	778	778	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	13.87	2.09	0.41	35.52	59.61	362.52	24.36	4.85
		2	9.60	32.73	1.14	0.04	16.65	74.86	95.44	1.12	1.21
	Bx	1	28.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	29.37	0.48	0.01	6.95	69.32	41.41	0.19	0.52
		2	4.80	46.04	4.37	1.10	77.72	95.44	376.04	32.45	5.12
	Cx	1	23.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	59.99	1.58	0.32	26.98	101.14	106.00	9.30	1.45
	Dx	1	19.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.19	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	12.13	10.43	116.23	0.07	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.26	13.91	23.45	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	41.58	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	1.41	17.39	8.09	0.00	0.00	0.00	35.00	0.00	35.00	
		2	0.00	13.82	6.96	198.72	1.68	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	34.03	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	3.89	52.17	7.47	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	28.05	0.00	0.00	0.00	0.00	42.00	0.00	42.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	58.00	58.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	10.00	10.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	38.94	3.80	10.25	21.07
		2	10.32	1.52	6.80	42.33
	Bx	1	117.39	3.91	30.00	28.69
	C	1	6.00	0.69	8.70	41.37
		2	17.12	6.04	2.83	50.84
	Cx	1	137.76	4.59	30.00	23.48
	D	1	34.20	3.04	11.25	95.99
	Dx	1	30.49	1.02	30.00	19.36
	9	1	26.30	0.88	30.00	6.47
	10	1	31.63	1.05	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	12.13	0.41	7.98	1.00	0.00	40.37
		2	0.00	0.00	✓	3.26	0.04	3.05	1.00	0.00	17.86
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.41	0.01	1.37	1.00	0.00	7.47
		2	0.00	0.00	✓	13.84	1.12	10.87	1.00	0.00	82.84
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	3.90	0.32	3.68	1.00	0.00	28.42
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:38:14	24/03/2022 17:38:14	17:00	120	310.79	20.96	75.09	C/2	0	0	C/2	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	75	0	4034	919	10.35	164.69	13.20	177.89

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4634	4634	0		75		33	969

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.76	16.28	19.08	1.87	297.59	22.72	985.17	67.45	13.20

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	198.72	0.00	240.00	68.00	308.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	457.86	37.38	12.25

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	310.79

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	67.2	0.0	86.0	0.0	0.0	0.0	0.0
	2	119.5	0.0	0.0	124.7	0.0	0.0	0.0	0.0
	3	88.6	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	49.4	66.6	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	60		124.68		60	124.68
7	2	1	54		119.47		54	119.47
8	3	2	0		0.00		0	0.00
9	3	4	3		93.85		3	93.85
10	3	1	1		88.64		1	88.64
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	0		0.00		0	0.00
20	1	4	428		85.99		428	85.99
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	60		67.19		60	67.19
46	4	1	649		49.44		649	49.44
47	4	3	0		0.00		0	0.00
48	4	2	129		66.56		129	66.56
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	649 <	1800	72	0.00	58	71	21.07	13.87	59.61	
	2	(untitled)	1	1	B		129	1800	35	0.00	24	319	42.33	32.73	74.86	
Bx	1	(untitled)					491	Unrestricted	120	34.00	0	Unrestricted	28.69	0.00	0.00	
C	1	(untitled)	1	1	A		60	1800	37	35.00	11	850	41.37	29.37	69.32	
	2	(untitled)	1	1	A		428 <	1800	37	0.00	75	33	50.84	46.04	95.44	
Cx	1	(untitled)					704	Unrestricted	120	4.00	0	Unrestricted	23.48	0.00	0.00	
D	1	(untitled)	1	1	D		114	1800	13	0.00	54	84	95.99	59.99	101.14	
Dx	1	(untitled)					189	Unrestricted	120	42.00	0	Unrestricted	19.36	0.00	0.00	
9	1	(untitled)	1				488	Unrestricted	120	58.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				778	Unrestricted	120	10.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	450.46	26.61	16.93	9.72	1.87	164.69	13.20	0.00	177.89
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	457.86	37.38	12.25	19.08	1.87	297.59	13.20	0.00	310.79

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO NOTHING
D2 - 2023 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:38:15	24/03/2022 17:38:16	17:00	120	333.01	22.42	80.00	C/2	0	0	C/2	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO NOTHING		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.34						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	239.09						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	195.68						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	161.30						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	692	692
	2	138	138
Bx	1	523	523
C	1	64	64
	2	456	456
Cx	1	751	751
D	1	122	122
Dx	1	202	202
9	1	520	520
10	1	830	830

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.69	30.00	✓	Nearside	36.07
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.48	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.36	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.00	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.69	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.48	30.00	✓	Nearside	41.58
Dx	1	2	A/1	Dx/1	19.36	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.00	30.00	✓	Offside	57.82
Bx	1	3	C/2	Bx/1	28.69	30.00	✓	Offside	43.48
Cx	1	3	D/1	Cx/1	23.48	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.36	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	64	0	456	0	0	0	0
	2	58	0	0	64	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	692	138	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	64
	7		2	1	D/1, Cx/1	Normal	58
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	456
	43		1	2	9/1, C/1, Dx/1	Normal	64
	46		4	1	10/1, B/1, Cx/1	Normal	692
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	138

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

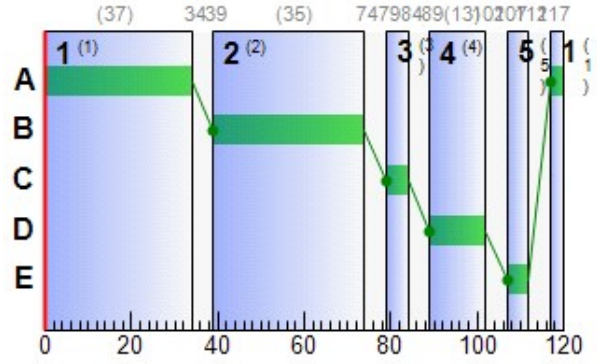
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

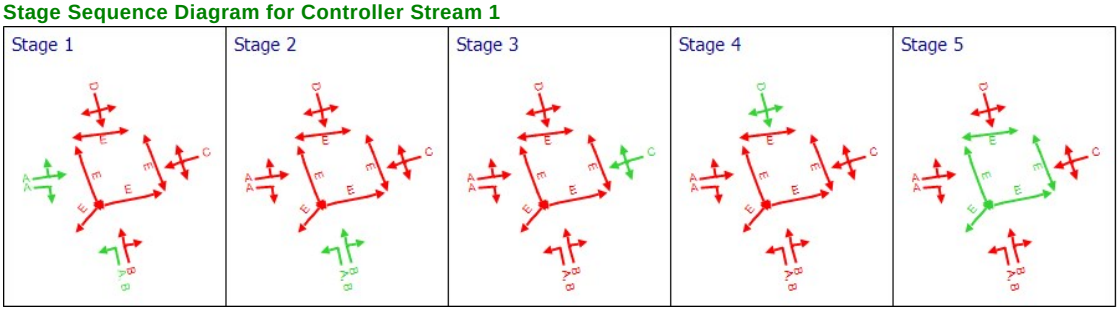
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	62	60	692	1800	72	14.72	13.58	130.18	40.18	5.42	45.60
		2	26	291	138	1800	35	32.98	3.49	25.11	17.95	1.30	19.25
	Bx	1	0	Unrestricted	523	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	11	791	64	1800	37	29.45	1.52	8.73	7.43	0.56	7.99
		2	80	25	456	1800	37	49.66	15.34	220.57	89.32	5.69	95.01
	Cx	1	0	Unrestricted	751	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	72	122	1800	13	61.86	4.22	8.09	29.77	1.57	31.34
	Dx	1	0	Unrestricted	202	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	520	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	830	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	692	692	0		1800	1110	62		60	0.00	72
		2	138	138	0		1800	540	26		291	0.00	35
	Bx	1	523	523	0		Unrestricted	Unrestricted	0		Unrestricted	0.94	120
	C	1	64	64	0		1800	570	11		791	0.00	37
		2	456	456	0		1800	570	80		25	0.00	37
	Cx	1	751	751	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	122	122	0		1800	210	58		72	0.00	13
	Dx	1	202	202	0		Unrestricted	Unrestricted	0		Unrestricted	0.96	120
	9	1	520	520	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	830	830	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	14.72	2.32	0.51	40.18	62.42	401.51	30.45	5.42
		2	9.60	32.98	1.22	0.04	17.95	74.96	102.14	1.31	1.30
	Bx	1	28.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	29.45	0.52	0.01	7.43	69.63	44.35	0.21	0.56
		2	4.80	49.66	4.75	1.54	89.32	99.45	408.53	44.97	5.69
	Cx	1	23.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	61.86	1.70	0.39	29.77	102.64	113.68	11.54	1.57
	Dx	1	19.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.19	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	13.58	10.43	130.18	0.23	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.49	13.91	25.11	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	41.58	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	C	1	0.00	1.52	17.39	8.73	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	15.34	6.96	220.57	2.35	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	34.03	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	4.22	52.17	8.09	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	28.05	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	67.00	67.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	17.00	17.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	41.52	4.21	9.85	21.92
		2	11.04	1.63	6.76	42.58
	Bx	1	125.04	4.17	30.00	28.69
	C	1	6.40	0.74	8.68	41.45
		2	18.24	6.90	2.64	54.46
	Cx	1	146.96	4.90	30.00	23.48
	D	1	36.60	3.32	11.04	97.86
	Dx	1	32.58	1.09	30.00	19.36
	9	1	28.02	0.93	30.00	6.47
	10	1	33.74	1.12	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	13.59	0.51	8.59	1.00	0.00	45.60
		2	0.00	0.00	✓	3.49	0.04	3.26	1.00	0.00	19.25
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.52	0.01	1.46	1.00	0.00	7.99
		2	0.00	0.00	✓	15.37	1.57	11.95	1.00	0.00	95.01
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.23	0.40	3.99	1.00	0.00	31.34
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:38:15	24/03/2022 17:38:16	17:00	120	333.01	22.42	80.00	C/2	0	0	C/2	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	80	0	4302	919	10.93	185.54	14.58	200.11

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4902	4902	0		80		25	969

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.80	16.47	19.93	2.50	318.43	23.71	1073.97	88.51	14.58

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	220.57	0.00	203.00	84.00	287.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	487.87	39.85	12.24

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	333.01

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	67.3	0.0	89.6	0.0	0.0	0.0	0.0
	2	121.3	0.0	0.0	126.5	0.0	0.0	0.0	0.0
	3	88.6	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	50.3	66.8	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	64		126.55		64	126.55
7	2	1	58		121.34		58	121.34
8	3	2	0		0.00		0	0.00
9	3	4	3		93.85		3	93.85
10	3	1	1		88.64		1	88.64
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	0		0.00		0	0.00
20	1	4	456		89.62		456	89.62
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	64		67.27		64	67.27
46	4	1	692		50.28		692	50.28
47	4	3	0		0.00		0	0.00
48	4	2	138		66.82		138	66.82
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	692 <	1800	72	0.00	62	60	21.92	14.72	62.42	
	2	(untitled)	1	1	B		138	1800	35	0.00	26	291	42.58	32.98	74.96	
Bx	1	(untitled)					523	Unrestricted	120	33.00	0	Unrestricted	28.69	0.00	0.00	
C	1	(untitled)	1	1	A		64	1800	37	0.00	11	791	41.45	29.45	69.63	
	2	(untitled)	1	1	A		456 <	1800	37	0.00	80	25	54.46	49.66	99.45	
Cx	1	(untitled)					751	Unrestricted	120	4.00	0	Unrestricted	23.48	0.00	0.00	
D	1	(untitled)	1	1	D		122	1800	13	0.00	58	72	97.86	61.86	102.64	
Dx	1	(untitled)					202	Unrestricted	120	41.00	0	Unrestricted	19.36	0.00	0.00	
9	1	(untitled)	1				520	Unrestricted	120	67.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				830	Unrestricted	120	17.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	480.47	29.08	16.52	10.57	2.50	185.54	14.58	0.00	200.11
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	487.87	39.85	12.24	19.93	2.50	318.43	14.58	0.00	333.01

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2023 DO SOMETHING
D3 - 2023 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:38:16	24/03/2022 17:38:17	17:00	120	354.15	23.83	84.74	C/2	0	0	C/2	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO SOMETHING		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.34						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	239.09						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	195.68						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	161.30						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	733	733
	2	138	138
Bx	1	550	550
C	1	64	64
	2	483	483
Cx	1	792	792
D	1	122	122
Dx	1	202	202
9	1	547	547
10	1	871	871

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.69	30.00	✓	Nearside	36.07
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.48	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.36	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.00	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.69	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.48	30.00	✓	Nearside	41.58
Dx	1	2	A/1	Dx/1	19.36	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.00	30.00	✓	Offside	57.82
Bx	1	3	C/2	Bx/1	28.69	30.00	✓	Offside	43.48
Cx	1	3	D/1	Cx/1	23.48	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.36	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	64	0	483	0	0	0	0
	2	58	0	0	64	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	733	138	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	64
	7		2	1	D/1, Cx/1	Normal	58
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	483
	43		1	2	9/1, C/1, Dx/1	Normal	64
	46		4	1	10/1, B/1, Cx/1	Normal	733
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	138

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

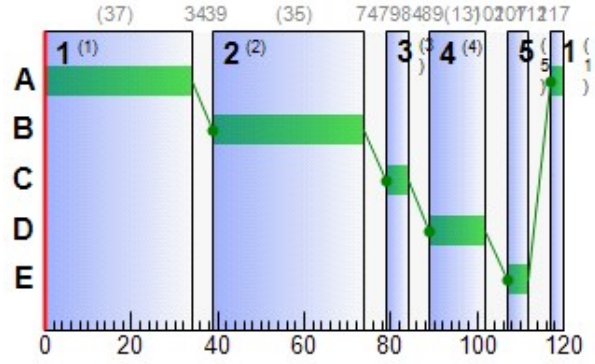
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

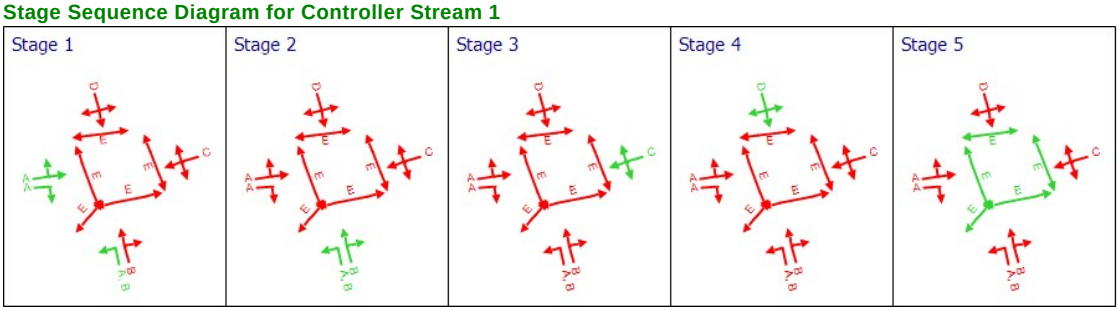
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	66	51	733	1800	72	15.64	14.89	142.70	45.23	6.01	51.24
		2	26	291	138	1800	35	32.98	3.49	25.11	17.95	1.30	19.25
	Bx	1	0	Unrestricted	550	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	11	791	64	1800	37	29.45	1.52	8.73	7.43	0.56	7.99
		2	85	18	483	1800	37	54.68	17.23	247.61	104.17	6.33	110.51
	Cx	1	0	Unrestricted	792	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	72	122	1800	13	61.86	4.22	8.09	29.77	1.57	31.34
	Dx	1	0	Unrestricted	202	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	547	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	871	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	733	733	0		1800	1110	66		51	0.00	72
		2	138	138	0		1800	540	26		291	0.00	35
	Bx	1	550	550	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	120
	C	1	64	64	0		1800	570	11		791	0.00	37
		2	483	483	0		1800	570	85		18	0.00	37
	Cx	1	792	792	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	122	122	0		1800	210	58		72	0.00	13
	Dx	1	202	202	0		Unrestricted	Unrestricted	0		Unrestricted	0.96	120
	9	1	547	547	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	871	871	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	15.64	2.55	0.64	45.23	65.39	441.53	37.76	6.01
		2	9.60	32.98	1.22	0.04	17.95	74.96	102.14	1.31	1.30
	Bx	1	28.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	29.45	0.52	0.01	7.43	69.63	44.35	0.21	0.56
		2	4.80	54.68	5.14	2.20	104.17	104.60	441.45	63.75	6.33
	Cx	1	23.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	61.86	1.70	0.39	29.77	102.64	113.68	11.54	1.57
	Dx	1	19.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.19	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	14.89	10.43	142.70	0.42	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.49	13.91	25.11	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	41.58	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	C	1	0.00	1.52	17.39	8.73	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	17.23	6.96	247.61	3.32	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	34.03	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	4.22	52.17	8.09	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	28.05	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	77.00	77.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	22.00	22.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	43.98	4.65	9.46	22.84
		2	11.04	1.63	6.76	42.58
	Bx	1	131.50	4.38	30.00	28.69
	C	1	6.40	0.74	8.68	41.45
		2	19.32	7.98	2.42	59.48
	Cx	1	154.98	5.17	30.00	23.48
	D	1	36.60	3.32	11.04	97.86
	Dx	1	32.58	1.09	30.00	19.36
	9	1	29.48	0.98	30.00	6.47
	10	1	35.41	1.18	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	14.89	0.64	9.19	1.00	0.00	51.24
		2	0.00	0.00	✓	3.49	0.04	3.26	1.00	0.00	19.25
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.52	0.01	1.46	1.00	0.00	7.99
		2	0.00	0.00	✓	17.30	2.27	13.27	1.00	0.00	110.51
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.23	0.40	3.99	1.00	0.00	31.34
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:38:16	24/03/2022 17:38:17	17:00	120	354.15	23.83	84.74	C/2	0	0	C/2	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	85	0	4506	919	11.56	205.44	15.82	221.26

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5106	5106	0		85		18	969

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.78	16.80	20.54	3.28	338.33	24.71	1146.91	114.60	15.82

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	247.61	0.00	202.00	99.00	301.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	509.01	41.95	12.13

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	354.15

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	67.3	0.0	94.6	0.0	0.0	0.0	0.0
	2	121.3	0.0	0.0	126.5	0.0	0.0	0.0	0.0
	3	88.6	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	51.2	66.8	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	64		126.55		64	126.55
7	2	1	58		121.34		58	121.34
8	3	2	0		0.00		0	0.00
9	3	4	3		93.85		3	93.85
10	3	1	1		88.64		1	88.64
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	0		0.00		0	0.00
20	1	4	483		94.64		483	94.64
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	64		67.27		64	67.27
46	4	1	733		51.21		733	51.21
47	4	3	0		0.00		0	0.00
48	4	2	138		66.82		138	66.82
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	733 <	1800	72	0.00	66	51	22.84	15.64	65.39	
	2	(untitled)	1	1	B		138	1800	35	0.00	26	291	42.58	32.98	74.96	
Bx	1	(untitled)					550	Unrestricted	120	32.00	0	Unrestricted	28.69	0.00	0.00	
C	1	(untitled)	1	1	A		64	1800	37	0.00	11	791	41.45	29.45	69.63	
	2	(untitled)	1	1	A		483 <	1800	37	0.00	85	18	59.48	54.68	104.60	
Cx	1	(untitled)					792	Unrestricted	120	4.00	0	Unrestricted	23.48	0.00	0.00	
D	1	(untitled)	1	1	D		122	1800	13	0.00	58	72	97.86	61.86	102.64	
Dx	1	(untitled)					202	Unrestricted	120	41.00	0	Unrestricted	19.36	0.00	0.00	
9	1	(untitled)	1				547	Unrestricted	120	77.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				871	Unrestricted	120	22.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	501.61	31.19	16.08	11.19	3.28	205.44	15.82	0.00	221.26
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	509.01	41.95	12.13	20.54	3.28	338.33	15.82	0.00	354.15

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO NOTHING
D4 - 2025 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:38:17	24/03/2022 17:38:18	17:00	120	346.16	23.29	82.63	C/2	0	0	C/2	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO NOTHING		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.34						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	239.09						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	195.68						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	161.30						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	715	715
	2	142	142
Bx	1	540	540
C	1	66	66
	2	471	471
Cx	1	775	775
D	1	125	125
Dx	1	208	208
9	1	537	537
10	1	857	857

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.69	30.00	✓	Nearside	36.07
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.48	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.36	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.00	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.69	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.48	30.00	✓	Nearside	41.58
Dx	1	2	A/1	Dx/1	19.36	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.00	30.00	✓	Offside	57.82
Bx	1	3	C/2	Bx/1	28.69	30.00	✓	Offside	43.48
Cx	1	3	D/1	Cx/1	23.48	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.36	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	66	0	471	0	0	0	0
	2	59	0	0	66	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	715	142	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	66
	7		2	1	D/1, Cx/1	Normal	59
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	471
	43		1	2	9/1, C/1, Dx/1	Normal	66
	46		4	1	10/1, B/1, Cx/1	Normal	715
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	142

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

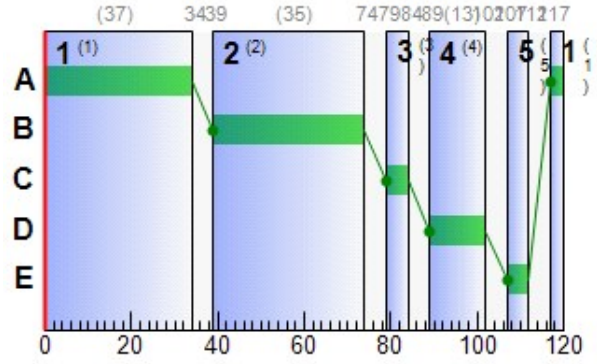
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

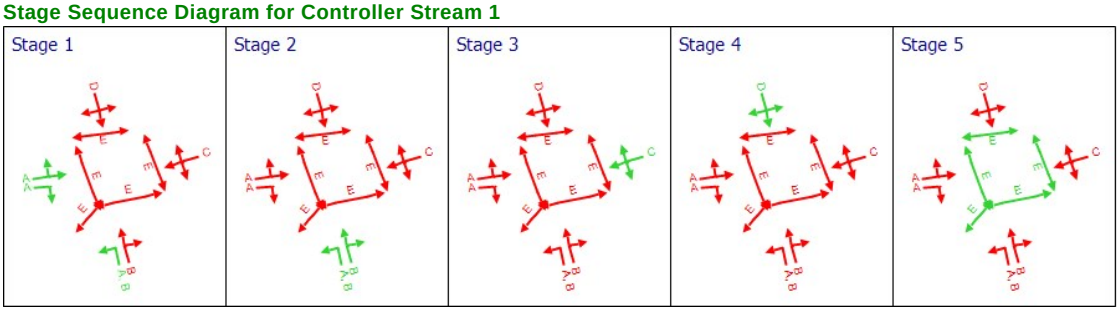
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	64	55	715	1800	72	15.22	14.28	136.88	42.94	5.75	48.69
		2	26	280	142	1800	35	33.11	3.64	26.14	18.55	1.35	19.89
	Bx	1	0	Unrestricted	540	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12	764	66	1800	37	29.51	1.57	9.00	7.68	0.58	8.26
		2	83	21	471	1800	37	52.20	16.39	235.56	96.97	6.03	103.00
	Cx	1	0	Unrestricted	775	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	60	68	125	1800	13	62.62	4.35	8.34	30.88	1.62	32.49
	Dx	1	0	Unrestricted	208	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	537	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	857	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	715	715	0		1800	1110	64		55	0.00	72
		2	142	142	0		1800	540	26		280	0.00	35
	Bx	1	540	540	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	120
	C	1	66	66	0		1800	570	12		764	0.00	37
		2	471	471	0		1800	570	83		21	0.00	37
	Cx	1	775	775	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	125	125	0		1800	210	60		68	0.00	13
	Dx	1	208	208	0		Unrestricted	Unrestricted	0		Unrestricted	0.96	120
	9	1	537	537	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	857	857	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	15.22	2.44	0.58	42.94	64.13	424.17	34.35	5.75
		2	9.60	33.11	1.26	0.05	18.55	75.62	105.97	1.40	1.35
	Bx	1	28.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	29.51	0.53	0.01	7.68	70.05	46.00	0.23	0.58
		2	4.80	52.20	4.96	1.86	96.97	102.09	426.55	54.30	6.03
	Cx	1	23.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	62.62	1.75	0.43	30.88	103.18	116.48	12.50	1.62
	Dx	1	19.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.19	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	14.28	10.43	136.88	0.33	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.64	13.91	26.14	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	41.58	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	C	1	0.00	1.57	17.39	9.00	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	16.39	6.96	235.56	2.87	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	34.03	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	4.35	52.17	8.34	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	28.05	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	73.00	73.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	20.00	20.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	42.90	4.45	9.63	22.42
		2	11.36	1.68	6.74	42.71
	Bx	1	129.11	4.30	30.00	28.69
	C	1	6.60	0.76	8.67	41.51
		2	18.84	7.46	2.53	57.00
	Cx	1	151.65	5.06	30.00	23.48
	D	1	37.50	3.42	10.95	98.62
	Dx	1	33.55	1.12	30.00	19.36
	9	1	28.94	0.96	30.00	6.47
	10	1	34.84	1.16	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	14.29	0.58	8.92	1.00	0.00	48.69
		2	0.00	0.00	✓	3.64	0.05	3.36	1.00	0.00	19.89
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.57	0.01	1.51	1.00	0.00	8.26
		2	0.00	0.00	✓	16.44	1.91	12.64	1.00	0.00	103.00
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.36	0.43	4.11	1.00	0.00	32.49
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:38:17	24/03/2022 17:38:18	17:00	120	346.16	23.29	82.63	C/2	0	0	C/2	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	83	0	4440	919	11.30	197.89	15.37	213.26

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5040	5040	0		83		21	969

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.81	16.64	20.37	2.93	330.79	24.32	1122.93	102.81	15.37

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	235.56	0.00	200.00	93.00	293.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	503.01	41.22	12.20

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	346.16

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	67.3	0.0	92.2	0.0	0.0	0.0	0.0
	2	122.1	0.0	0.0	127.3	0.0	0.0	0.0	0.0
	3	88.6	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	50.8	66.9	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	66		127.32		66	127.32
7	2	1	59		122.11		59	122.11
8	3	2	0		0.00		0	0.00
9	3	4	3		93.85		3	93.85
10	3	1	1		88.64		1	88.64
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	0		0.00		0	0.00
20	1	4	471		92.15		471	92.15
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	66		67.33		66	67.33
46	4	1	715		50.78		715	50.78
47	4	3	0		0.00		0	0.00
48	4	2	142		66.95		142	66.95
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	715 <	1800	72	0.00	64	55	22.42	15.22	64.13	
	2	(untitled)	1	1	B		142	1800	35	0.00	26	280	42.71	33.11	75.62	
Bx	1	(untitled)					540	Unrestricted	120	31.00	0	Unrestricted	28.69	0.00	0.00	
C	1	(untitled)	1	1	A		66	1800	37	0.00	12	764	41.51	29.51	70.05	
	2	(untitled)	1	1	A		471 <	1800	37	0.00	83	21	57.00	52.20	102.09	
Cx	1	(untitled)					775	Unrestricted	120	3.00	0	Unrestricted	23.48	0.00	0.00	
D	1	(untitled)	1	1	D		125	1800	13	0.00	60	68	98.62	62.62	103.18	
Dx	1	(untitled)					208	Unrestricted	120	41.00	0	Unrestricted	19.36	0.00	0.00	
9	1	(untitled)	1				537	Unrestricted	120	73.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				857	Unrestricted	120	20.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	495.61	30.46	16.27	11.01	2.93	197.89	15.37	0.00	213.26
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	503.01	41.22	12.20	20.37	2.93	330.79	15.37	0.00	346.16

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - 2025 DO SOMETHING
D5 - 2025 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:38:18	24/03/2022 17:38:19	17:00	120	381.75	25.67	88.95	C/2	0	0	C/2	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO SOMETHING		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	133.34						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	239.09						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	195.68						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	161.30						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	771	771
	2	142	142
Bx	1	576	576
C	1	66	66
	2	507	507
Cx	1	831	831
D	1	125	125
Dx	1	208	208
9	1	573	573
10	1	913	913

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.69	30.00	✓	Nearside	36.07
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.48	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.36	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.00	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.69	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.48	30.00	✓	Nearside	41.58
Dx	1	2	A/1	Dx/1	19.36	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.00	30.00	✓	Offside	57.82
Bx	1	3	C/2	Bx/1	28.69	30.00	✓	Offside	43.48
Cx	1	3	D/1	Cx/1	23.48	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.36	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	2:1	3.00	2.00	5.40
2	5:1	1:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	66	0	507	0	0	0	0
	2	59	0	0	66	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	771	142	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	5:2E	5:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	66
	7		2	1	D/1, Cx/1	Normal	59
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	507
	43		1	2	9/1, C/1, Dx/1	Normal	66
	46		4	1	10/1, B/1, Cx/1	Normal	771
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	142

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X, 5:1E, 5:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		5	6	1:1E, 1:2X, 5:1E, 5:2X	Normal	50
	50		6	5	5:2E, 5:1X, 1:2E, 1:1X	Normal	50
	51		6	8	5:2E, 5:1X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

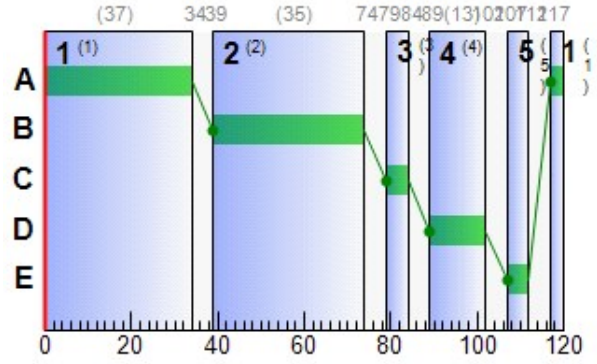
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

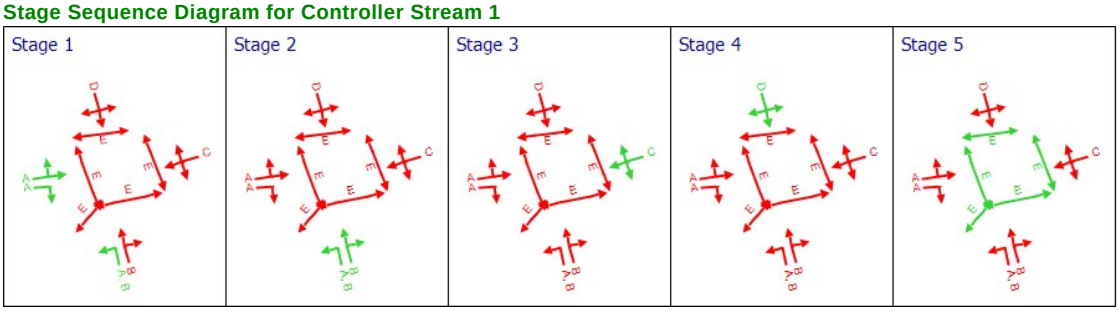
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	69	44	771	1800	72	16.63	16.42	157.33	50.58	6.61	57.19
		2	26	280	142	1800	35	33.11	3.64	26.14	18.55	1.35	19.89
	Bx	1	0	Unrestricted	576	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12	764	66	1800	37	29.51	1.57	9.00	7.68	0.58	8.26
		2	89	12	507	1800	37	61.52	19.23	276.37	123.03	7.06	130.09
	Cx	1	0	Unrestricted	831	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	60	68	125	1800	13	62.62	4.35	8.34	30.88	1.62	32.49
	Dx	1	0	Unrestricted	208	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	573	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	913	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	771	771	0		1800	1110	69		44	0.00	72
		2	142	142	0		1800	540	26		280	0.00	35
	Bx	1	576	576	0		Unrestricted	Unrestricted	0		Unrestricted	0.92	120
	C	1	66	66	0		1800	570	12		764	0.00	37
		2	507	507	0		1800	570	89		12	0.00	37
	Cx	1	831	831	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	125	125	0		1800	210	60		68	0.00	13
	Dx	1	208	208	0		Unrestricted	Unrestricted	0		Unrestricted	0.96	120
	9	1	573	573	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	913	913	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	16.63	2.78	0.78	50.58	68.41	481.13	46.27	6.61
		2	9.60	33.11	1.26	0.05	18.55	75.62	105.97	1.40	1.35
	Bx	1	28.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	29.51	0.53	0.01	7.68	70.05	46.00	0.23	0.58
		2	4.80	61.52	5.49	3.17	123.03	111.06	472.26	90.80	7.06
	Cx	1	23.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	62.62	1.75	0.43	30.88	103.18	116.48	12.50	1.62
	Dx	1	19.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.19	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	16.42	10.43	157.33	0.72	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.64	13.91	26.14	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	41.58	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	C	1	0.00	1.57	17.39	9.00	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	19.23	6.96	276.37	4.50	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	34.03	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	4.35	52.17	8.34	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	28.05	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	88.00	88.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	28.00	28.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	46.26	5.10	9.06	23.83
		2	11.36	1.68	6.74	42.71
	Bx	1	137.72	4.59	30.00	28.69
	C	1	6.60	0.76	8.67	41.51
		2	20.28	9.34	2.17	66.32
	Cx	1	162.61	5.42	30.00	23.48
	D	1	37.50	3.42	10.95	98.62
	Dx	1	33.55	1.12	30.00	19.36
	9	1	30.88	1.03	30.00	6.47
	10	1	37.12	1.24	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	16.42	0.79	9.78	1.00	0.00	57.19
		2	0.00	0.00	✓	3.64	0.05	3.36	1.00	0.00	19.89
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.57	0.01	1.51	1.00	0.00	8.26
		2	0.00	0.00	✓	19.41	3.35	14.90	1.00	0.00	130.09
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.36	0.43	4.11	1.00	0.00	32.49
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	9.53	0.14	1.88	1.88
	2	1	11	50	11000	5	9.53	0.14	1.88	1.88
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	5	1	22	100	11000	5	105.00	3.33	41.42	41.42
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	2	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
		1	50	50	0		11000	458	11		817	0.00	5
		2											
	5	1	100	100	0		11000	458	22		358	1.92	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	15.33	9.53	0.13	0.00	1.88
	2	1	15.33	9.53	0.13	0.00	1.88
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96
	5	1	4.00	105.00	2.92	0.00	41.42
		2	3.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	0.14	10.00	1.39	0.00	0.00	0.00
	2	1	0.14	10.00	1.39	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.15	0.35	3.33	24.87
	2	1	1.15	0.35	3.33	24.87
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92
	5	1	0.60	3.03	0.20	109.00
		2	0.40	1.63	0.25	58.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	0.14	1.00	0.00	1.88
	2	1	0.00	0.00	0.14	1.00	0.00	1.88
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	5	1	0.00	0.00	3.33	1.00	0.00	41.42
		2	0.00	0.00	3.19	1.00	0.00	21.94

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:38:18	24/03/2022 17:38:19	17:00	120	381.75	25.67	88.95	C/2	0	0	C/2	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	89	0	4716	919	12.45	231.59	17.26	248.85

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	22	600	50	56.15	132.89	132.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5316	5316	0		89		12	969

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.79	17.38	21.23	4.44	364.48	25.90	1225.60	151.23	17.26

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	276.37	0.00	198.00	116.00	314.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	531.59	44.55	11.93

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	381.75

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	67.3	0.0	101.5	0.0	0.0	0.0	0.0
	2	122.1	0.0	0.0	127.3	0.0	0.0	0.0	0.0
	3	88.6	0.0	0.0	93.8	0.0	0.0	0.0	0.0
	4	52.2	66.9	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	178.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	83.5	0.0	0.0	83.5
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	178.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	66		127.32		66	127.32
7	2	1	59		122.11		59	122.11
8	3	2	0		0.00		0	0.00
9	3	4	3		93.85		3	93.85
10	3	1	1		88.64		1	88.64
17	8	7		50		61.92	50	61.92
18	8	6		50		178.92	50	178.92
19	1	3	0		0.00		0	0.00
20	1	4	507		101.48		507	101.48
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	66		67.33		66	67.33
46	4	1	771		52.19		771	52.19
47	4	3	0		0.00		0	0.00
48	4	2	142		66.95		142	66.95
49	5	6		50		178.92	50	178.92
50	6	5		50		83.50	50	83.50
51	6	8		50		83.50	50	83.50

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	771 <	1800	72	0.00	69	44	23.83	16.63	68.41	
	2	(untitled)	1	1	B		142	1800	35	0.00	26	280	42.71	33.11	75.62	
Bx	1	(untitled)					576	Unrestricted	120	29.00	0	Unrestricted	28.69	0.00	0.00	
C	1	(untitled)	1	1	A		66	1800	37	0.00	12	764	41.51	29.51	70.05	
	2	(untitled)	1	1	A		507 <	1800	37	0.00	89	12	66.32	61.52	111.06	
Cx	1	(untitled)					831	Unrestricted	120	3.00	0	Unrestricted	23.48	0.00	0.00	
D	1	(untitled)	1	1	D		125	1800	13	0.00	60	68	98.62	62.62	103.18	
Dx	1	(untitled)					208	Unrestricted	120	41.00	0	Unrestricted	19.36	0.00	0.00	
9	1	(untitled)	1				573	Unrestricted	120	88.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				913	Unrestricted	120	28.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	24.87	9.53	0.14	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	
5	1	(untitled)		1	E	100	11000	5	22	358	109.00	105.00	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	58.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	524.19	33.78	15.52	11.87	4.44	231.59	17.26	0.00	248.85
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	7.40	10.77	0.69	9.36	0.00	132.89	0.00	0.00	132.89
TOTAL	531.59	44.55	11.93	21.23	4.44	364.48	17.26	0.00	381.75

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 15

Version: 15.5.2.7994

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Filename: Junction 3 - PM - Proposed Layout.t16
Path: \\wmfilesvr\Moylan\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 3\Proposed Layout
Report generation date: 24/03/2022 17:33:11

»A1 - 2023 DO NOTHING : D1 - 2023 DO NOTHING, * :
»A2 - 2023 DO SOMETHING : D2 - 2023 DO SOMETHING, * :
»A3 - 2025 DO NOTHING : D3 - 2025 DO NOTHING, * :
»A4 - 2025 DO SOMETHING : D4 - 2025 DO SOMETHING, * :
»A5 - 2027 DO NOTHING : D5 - 2027 DO NOTHING, * :
»A6 - 2027 DO SOMETHING : D6 - 2027 DO SOMETHING, * :
»A7 - 2032 DO NOTHING : D7 - 2032 DO NOTHING, * :
»A8 - 2032 DO SOMETHING : D8 - 2032 DO SOMETHING, * :
»A9 - 2042 DO NOTHING : D9 - 2042 DO NOTHING, * :
»A10 - 2042 DO SOMETHING : D10 - 2042 DO SOMETHING, * :

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

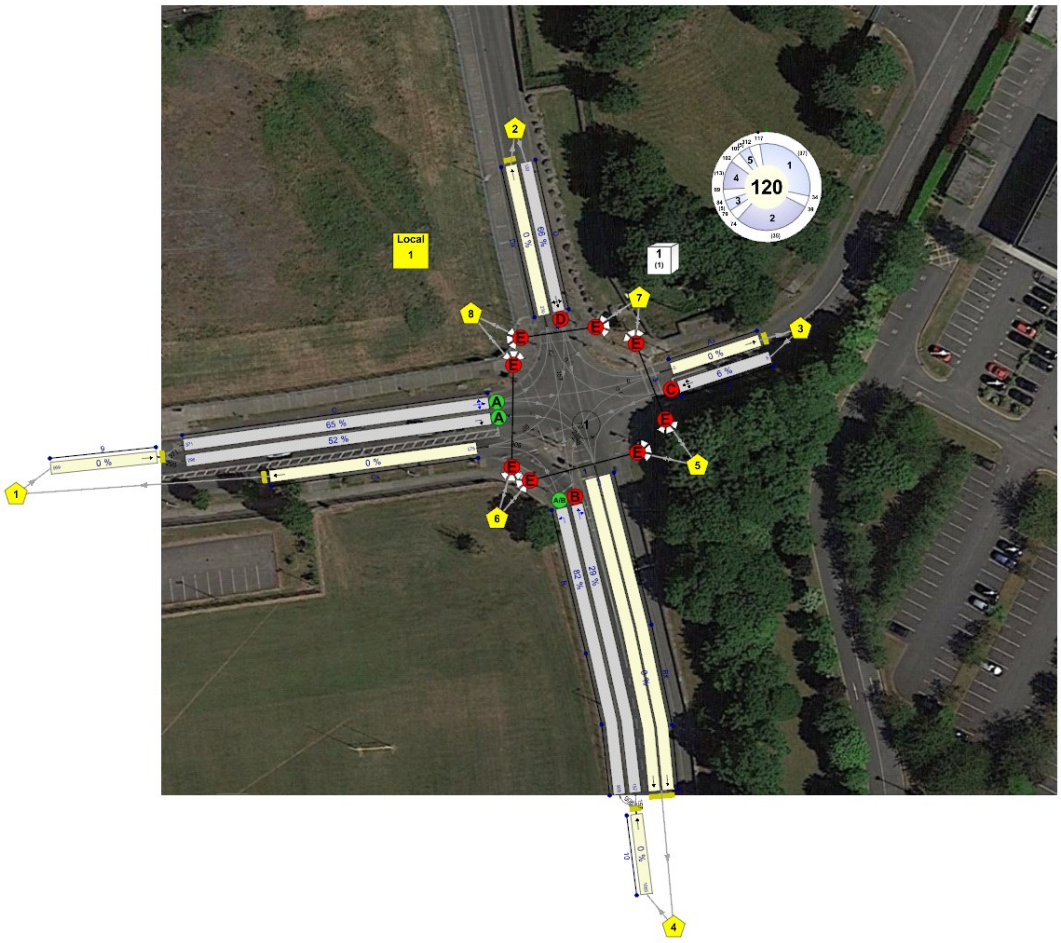
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



(untitled)
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2023 DO NOTHING
D1 - 2023 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:32:38	24/03/2022 17:32:39	17:00	120	263.13	17.57	62.34	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO NOTHING		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	692	692
	2	138	138
Bx	1	523	523
C	1	292	292
	2	228	228
Cx	1	751	751
D	1	122	122
Dx	1	202	202
9	1	520	520
10	1	830	830

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	64	0	456	0	0	0	0
	2	58	0	0	64	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	692	138	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	64
	7		2	1	D/1, Cx/1	Normal	58
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	228
	21		1	4	9/1, C/1, Bx/1	Normal	228
	43		1	2	9/1, C/1, Dx/1	Normal	64
	46		4	1	10/1, B/1, Cx/1	Normal	692
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	138

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

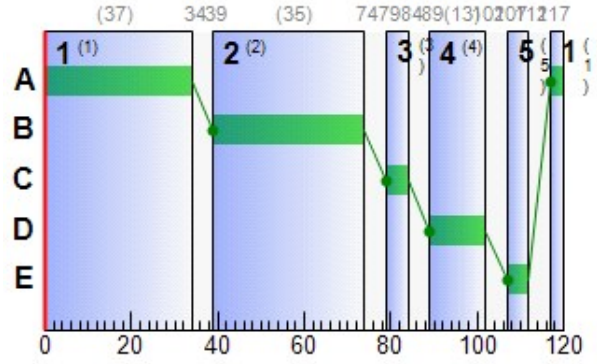
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

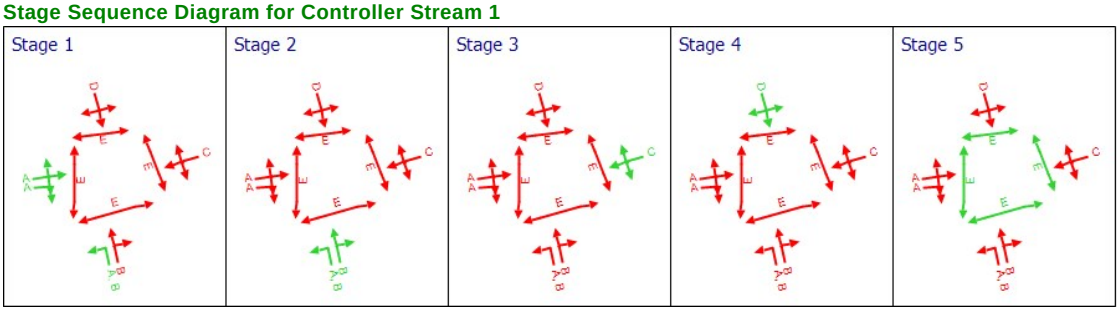
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	62	60	692	1800	72	14.72	13.58	130.18	40.18	5.42	45.60
		2	26	291	138	1800	35	32.98	3.49	25.11	17.95	1.30	19.25
	Bx	1	0	Unrestricted	523	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	51	95	292	1800	37	36.74	8.14	46.78	42.32	3.02	45.34
		2	40	150	228	1800	37	34.18	6.02	86.58	30.74	2.24	32.98
	Cx	1	0	Unrestricted	751	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	72	122	1800	13	61.86	4.22	8.09	29.77	1.57	31.34
	Dx	1	0	Unrestricted	202	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	520	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	830	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	692	692	0		1800	1110	62		60	0.00	72
		2	138	138	0		1800	540	26		291	0.00	35
	Bx	1	523	523	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	120
	C	1	292	292	0		1800	570	51		95	0.00	37
		2	228	228	0		1800	570	40		150	0.00	37
	Cx	1	751	751	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	122	122	0		1800	210	58		72	0.00	13
	Dx	1	202	202	0		Unrestricted	Unrestricted	0		Unrestricted	0.89	120
	9	1	520	520	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	830	830	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	14.72	2.32	0.51	40.18	62.42	401.51	30.45	5.42
		2	9.60	32.98	1.22	0.04	17.95	74.96	102.14	1.31	1.30
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	36.74	2.71	0.27	42.32	82.50	232.93	7.97	3.02
		2	4.80	34.18	2.03	0.13	30.74	78.23	174.38	3.97	2.24
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	61.86	1.70	0.39	29.77	102.64	113.68	11.54	1.57
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	13.58	10.43	130.18	0.23	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.49	13.91	25.11	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	36.00	0.00	36.00	
	C	1	0.00	8.14	17.39	46.78	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	6.02	6.96	86.58	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	4.22	52.17	8.09	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	17.00	17.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	41.52	4.21	9.85	21.92
		2	11.04	1.63	6.76	42.58
	Bx	1	124.21	4.14	30.00	28.50
	C	1	29.20	3.95	7.39	48.74
		2	9.12	2.47	3.69	38.98
	Cx	1	144.74	4.82	30.00	23.13
	D	1	36.60	3.32	11.04	97.86
	Dx	1	32.45	1.08	30.00	19.28
	9	1	28.02	0.93	30.00	6.47
	10	1	33.74	1.12	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	13.59	0.51	8.59	1.00	0.00	45.60
		2	0.00	0.00	✓	3.49	0.04	3.26	1.00	0.00	19.25
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.14	0.27	6.92	1.00	0.00	45.34
		2	0.00	0.00	✓	6.02	0.13	5.33	1.00	0.00	32.98
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.23	0.40	3.99	1.00	0.00	31.34
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:32:38	24/03/2022 17:32:39	17:00	120	263.13	17.57	62.34	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	62	0	4302	919	9.54	161.84	13.59	175.43

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4702	4702	0		62		60	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.44	13.45	16.22	1.35	249.54	23.05	1028.41	55.28	13.59

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	130.18	0.00	206.00	17.00	223.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	497.17	35.12	14.15

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	263.13

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	74.5	0.0	78.8	0.0	0.0	0.0	0.0
	2	121.0	0.0	0.0	126.4	0.0	0.0	0.0	0.0
	3	88.3	0.0	0.0	93.7	0.0	0.0	0.0	0.0
	4	49.9	66.7	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	64		126.36		64	126.36
7	2	1	58		120.99		58	120.99
8	3	2	0		0.00		0	0.00
9	3	4	3		93.65		3	93.65
10	3	1	1		88.28		1	88.28
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	228		73.95		228	73.95
21	1	4	228		83.71		228	83.71
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	64		74.49		64	74.49
46	4	1	692		49.93		692	49.93
47	4	3	0		0.00		0	0.00
48	4	2	138		66.74		138	66.74
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	692 <	1800	72	0.00	62	60	21.92	14.72	62.42	
	2	(untitled)	1	1	B		138	1800	35	0.00	26	291	42.58	32.98	74.96	
Bx	1	(untitled)					523	Unrestricted	120	36.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		292	1800	37	0.00	51	95	48.74	36.74	82.50	
	2	(untitled)	1	1	A		228	1800	37	0.00	40	150	38.98	34.18	78.23	
Cx	1	(untitled)					751	Unrestricted	120	4.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		122	1800	13	0.00	58	72	97.86	61.86	102.64	
Dx	1	(untitled)					202	Unrestricted	120	41.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				520	Unrestricted	120	0.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				830	Unrestricted	120	17.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	490.97	27.76	17.68	10.04	1.35	161.84	13.59	0.00	175.43
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	497.17	35.12	14.15	16.22	1.35	249.54	13.59	0.00	263.13

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO SOMETHING
D2 - 2023 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:32:39	24/03/2022 17:32:40	17:00	120	273.92	18.27	66.04	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO SOMETHING		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	733	733
	2	138	138
Bx	1	550	550
C	1	306	306
	2	242	242
Cx	1	792	792
D	1	122	122
Dx	1	202	202
9	1	547	547
10	1	871	871

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	64	0	483	0	0	0	0
	2	58	0	0	64	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	733	138	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	64
	7		2	1	D/1, Cx/1	Normal	58
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	242
	21		1	4	9/1, C/1, Bx/1	Normal	242
	43		1	2	9/1, C/1, Dx/1	Normal	64
	46		4	1	10/1, B/1, Cx/1	Normal	733
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	138

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

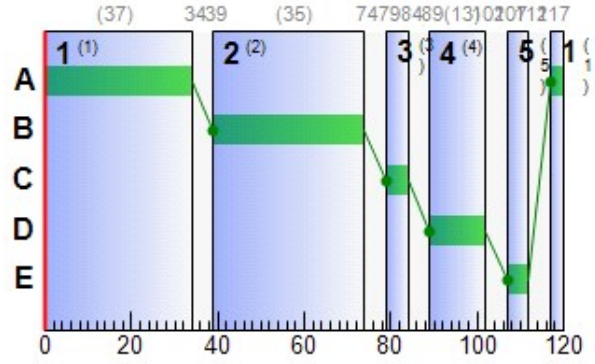
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

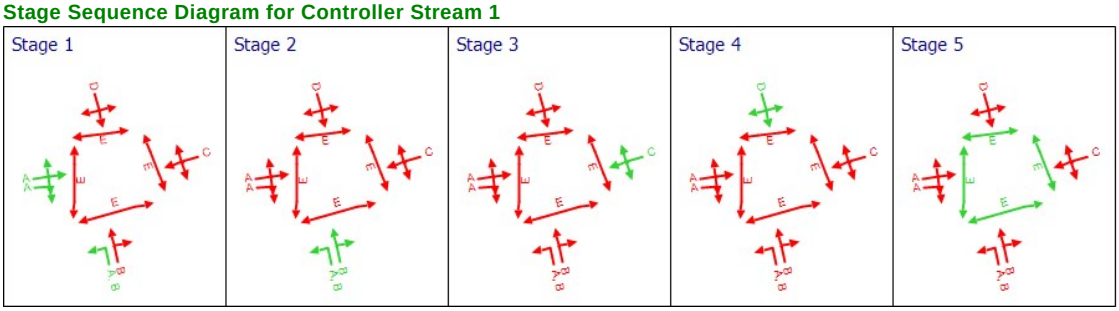
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	66	51	733	1800	72	15.64	14.89	142.70	45.23	6.01	51.24
		2	26	291	138	1800	35	32.98	3.49	25.11	17.95	1.30	19.25
	Bx	1	0	Unrestricted	549	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	54	87	305	1800	37	37.35	8.61	49.50	44.93	3.19	48.13
		2	42	137	241	1800	37	34.66	6.45	92.68	32.95	2.39	35.34
	Cx	1	0	Unrestricted	792	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	72	122	1800	13	61.86	4.22	8.09	29.77	1.57	31.34
	Dx	1	0	Unrestricted	202	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	546	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	871	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	733	733	0		1800	1110	66		51	0.00	72
		2	138	138	0		1800	540	26		291	0.00	35
	Bx	1	549	549	1		Unrestricted	Unrestricted	0		Unrestricted	0.99	120
	C	1	305	305	1		1800	570	54		87	0.00	37
		2	241	241	1		1800	570	42		137	0.00	37
	Cx	1	792	792	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	122	122	0		1800	210	58		72	0.00	13
	Dx	1	202	202	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	120
	9	1	546	546	1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	871	871	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	15.64	2.55	0.64	45.23	65.39	441.53	37.76	6.01
		2	9.60	32.98	1.22	0.04	17.95	74.96	102.14	1.31	1.30
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	37.35	2.86	0.31	44.93	83.54	245.69	9.11	3.19
		2	4.80	34.66	2.17	0.15	32.95	79.17	186.20	4.61	2.39
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	61.86	1.70	0.39	29.77	102.64	113.68	11.54	1.57
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	14.89	10.43	142.70	0.42	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.49	13.91	25.11	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	36.00	0.00	36.00	
	C	1	0.00	8.61	17.39	49.50	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	6.45	6.96	92.68	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	4.22	52.17	8.09	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	22.00	22.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	43.98	4.65	9.46	22.84
		2	11.04	1.63	6.76	42.58
	Bx	1	130.38	4.35	30.00	28.50
	C	1	30.50	4.18	7.30	49.35
		2	9.64	2.64	3.65	39.46
	Cx	1	152.65	5.09	30.00	23.13
	D	1	36.60	3.32	11.04	97.86
	Dx	1	32.45	1.08	30.00	19.28
	9	1	29.42	0.98	30.00	6.47
	10	1	35.41	1.18	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	14.89	0.64	9.19	1.00	0.00	51.24
		2	0.00	0.00	✓	3.49	0.04	3.26	1.00	0.00	19.25
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.61	0.31	7.25	1.00	0.00	48.13
		2	0.00	0.00	✓	6.45	0.15	5.64	1.00	0.00	35.34
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.23	0.40	3.99	1.00	0.00	31.34
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:32:39	24/03/2022 17:32:40	17:00	120	273.92	18.27	66.04	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	66	0	4503	919	9.67	171.71	14.51	186.22

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4903	4903	3		66		51	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.41	13.41	16.73	1.54	259.41	23.61	1093.01	64.36	14.51

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	142.70	0.00	206.00	22.00	228.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	518.59	36.53	14.20

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	273.92

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	75.1	0.0	79.4	0.0	0.0	0.0	0.0
	2	121.0	0.0	0.0	126.4	0.0	0.0	0.0	0.0
	3	88.3	0.0	0.0	93.7	0.0	0.0	0.0	0.0
	4	50.9	66.7	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	64		126.36		64	126.36
7	2	1	58		120.99		58	120.99
8	3	2	0		0.00		0	0.00
9	3	4	3		93.65		3	93.65
10	3	1	1		88.28		1	88.28
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	242		74.42		242	74.42
21	1	4	242		84.31		242	84.31
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	64		75.09		64	75.09
46	4	1	733		50.85		733	50.85
47	4	3	0		0.00		0	0.00
48	4	2	138		66.74		138	66.74
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	733 <	1800	72	0.00	66	51	22.84	15.64	65.39	
	2	(untitled)	1	1	B		138	1800	35	0.00	26	291	42.58	32.98	74.96	
Bx	1	(untitled)					549	Unrestricted	120	36.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		305	1800	37	0.00	54	87	49.35	37.35	83.54	
	2	(untitled)	1	1	A		241	1800	37	0.00	42	137	39.46	34.66	79.17	
Cx	1	(untitled)					792	Unrestricted	120	4.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		122	1800	13	0.00	58	72	97.86	61.86	102.64	
Dx	1	(untitled)					202	Unrestricted	120	41.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				546	Unrestricted	120	0.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				871	Unrestricted	120	22.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	512.39	29.17	17.56	10.56	1.54	171.71	14.51	0.00	186.22
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	518.59	36.53	14.20	16.73	1.54	259.41	14.51	0.00	273.92

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2025 DO NOTHING
D3 - 2025 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:32:41	24/03/2022 17:32:41	17:00	120	271.61	18.12	64.41	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO NOTHING		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	715	715
	2	142	142
Bx	1	540	540
C	1	302	302
	2	236	236
Cx	1	775	775
D	1	125	125
Dx	1	208	208
9	1	537	537
10	1	857	857

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	66	0	471	0	0	0	0
	2	59	0	0	66	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	715	142	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	66
	7		2	1	D/1, Cx/1	Normal	59
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	236
	21		1	4	9/1, C/1, Bx/1	Normal	236
	43		1	2	9/1, C/1, Dx/1	Normal	66
	46		4	1	10/1, B/1, Cx/1	Normal	715
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	142

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

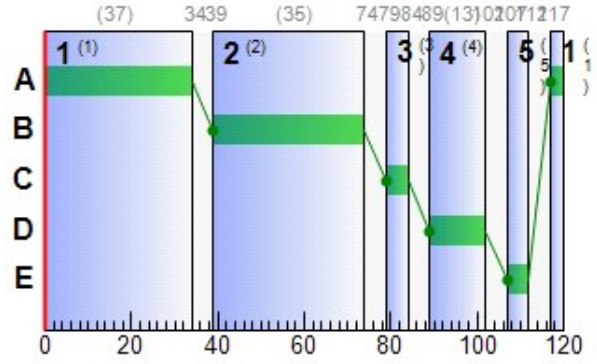
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

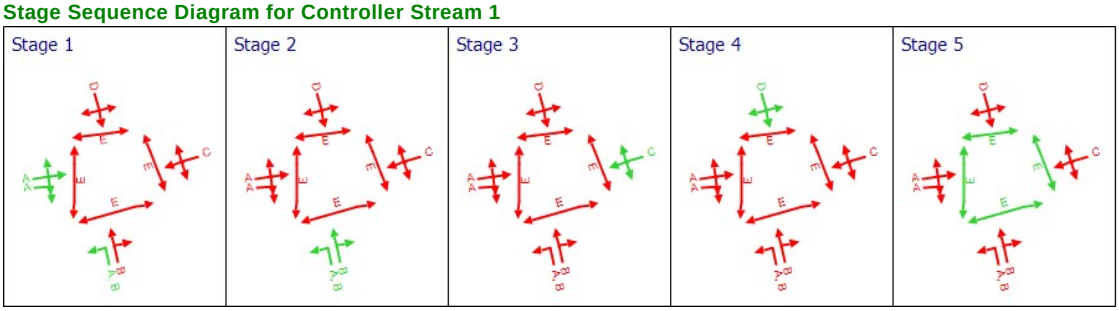
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	64	55	715	1800	72	15.22	14.28	136.88	42.94	5.75	48.69
		2	26	280	142	1800	35	33.11	3.64	26.14	18.55	1.35	19.89
	Bx	1	0	Unrestricted	541	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	53	89	302	1800	37	37.21	8.52	48.98	44.32	3.16	47.48
		2	41	142	236	1800	37	34.47	6.31	90.68	32.09	2.34	34.43
	Cx	1	0	Unrestricted	775	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	60	68	125	1800	13	62.62	4.35	8.34	30.88	1.62	32.49
	Dx	1	0	Unrestricted	208	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	538	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	857	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	715	715	0		1800	1110	64		55	0.00	72
		2	142	142	0		1800	540	26		280	0.00	35
	Bx	1	541	541	-1		Unrestricted	Unrestricted	0		Unrestricted	0.98	120
	C	1	302	302	-1		1800	570	53		89	0.00	37
		2	236	236	-1		1800	570	41		142	0.00	37
	Cx	1	775	775	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	125	125	0		1800	210	60		68	0.00	13
	Dx	1	208	208	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	120
	9	1	538	538	-1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	857	857	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	15.22	2.44	0.58	42.94	64.13	424.17	34.35	5.75
		2	9.60	33.11	1.26	0.05	18.55	75.62	105.97	1.40	1.35
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	37.21	2.82	0.30	44.32	83.41	243.07	8.84	3.16
		2	4.80	34.47	2.11	0.15	32.09	78.99	182.07	4.35	2.34
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	62.62	1.75	0.43	30.88	103.18	116.48	12.50	1.62
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	14.28	10.43	136.88	0.33	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.64	13.91	26.14	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	C	1	0.00	8.52	17.39	48.98	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	6.31	6.96	90.68	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	4.35	52.17	8.34	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	40.00	0.00	40.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	20.00	20.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	42.90	4.45	9.63	22.42
		2	11.36	1.68	6.74	42.71
	Bx	1	128.48	4.28	30.00	28.50
	C	1	30.20	4.13	7.32	49.21
		2	9.44	2.57	3.67	39.27
	Cx	1	149.37	4.98	30.00	23.13
	D	1	37.50	3.42	10.95	98.62
	Dx	1	33.42	1.11	30.00	19.28
	9	1	28.99	0.97	30.00	6.47
	10	1	34.84	1.16	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	14.29	0.58	8.92	1.00	0.00	48.69
		2	0.00	0.00	✓	3.64	0.05	3.36	1.00	0.00	19.89
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.52	0.30	7.18	1.00	0.00	47.48
		2	0.00	0.00	✓	6.31	0.15	5.52	1.00	0.00	34.43
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.36	0.43	4.11	1.00	0.00	32.49
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:32:41	24/03/2022 17:32:41	17:00	120	271.61	18.12	64.41	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	64	0	4443	919	9.68	169.65	14.26	183.91

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4843	4843	-3		64		55	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.44	13.47	16.63	1.50	257.35	23.48	1075.51	61.47	14.26

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	136.88	0.00	204.00	20.00	224.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	513.02	36.20	14.17

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	271.61

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	75.0	0.0	79.2	0.0	0.0	0.0	0.0
	2	121.8	0.0	0.0	127.1	0.0	0.0	0.0	0.0
	3	88.3	0.0	0.0	93.7	0.0	0.0	0.0	0.0
	4	50.4	66.9	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	66		127.12		66	127.12
7	2	1	59		121.75		59	121.75
8	3	2	0		0.00		0	0.00
9	3	4	3		93.65		3	93.65
10	3	1	1		88.28		1	88.28
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	236		74.24		236	74.24
21	1	4	236		84.17		236	84.17
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	66		74.95		66	74.95
46	4	1	715		50.43		715	50.43
47	4	3	0		0.00		0	0.00
48	4	2	142		66.87		142	66.87
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	715 <	1800	72	0.00	64	55	22.42	15.22	64.13	
	2	(untitled)	1	1	B		142	1800	35	0.00	26	280	42.71	33.11	75.62	
Bx	1	(untitled)					541	Unrestricted	120	35.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		302	1800	37	0.00	53	89	49.21	37.21	83.41	
	2	(untitled)	1	1	A		236	1800	37	0.00	41	142	39.27	34.47	78.99	
Cx	1	(untitled)					775	Unrestricted	120	4.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		125	1800	13	0.00	60	68	98.62	62.62	103.18	
Dx	1	(untitled)					208	Unrestricted	120	40.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				538	Unrestricted	120	0.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				857	Unrestricted	120	20.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	506.82	28.84	17.57	10.45	1.50	169.65	14.26	0.00	183.91
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	513.02	36.20	14.17	16.63	1.50	257.35	14.26	0.00	271.61

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO SOMETHING
D4 - 2025 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:32:42	24/03/2022 17:32:42	17:00	120	287.45	19.15	69.46	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO SOMETHING		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	771	771
	2	142	142
Bx	1	576	576
C	1	320	320
	2	254	254
Cx	1	831	831
D	1	125	125
Dx	1	208	208
9	1	573	573
10	1	913	913

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	66	0	507	0	0	0	0
	2	59	0	0	66	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	771	142	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	66
	7		2	1	D/1, Cx/1	Normal	59
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	254
	21		1	4	9/1, C/1, Bx/1	Normal	254
	43		1	2	9/1, C/1, Dx/1	Normal	66
	46		4	1	10/1, B/1, Cx/1	Normal	771
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	142

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

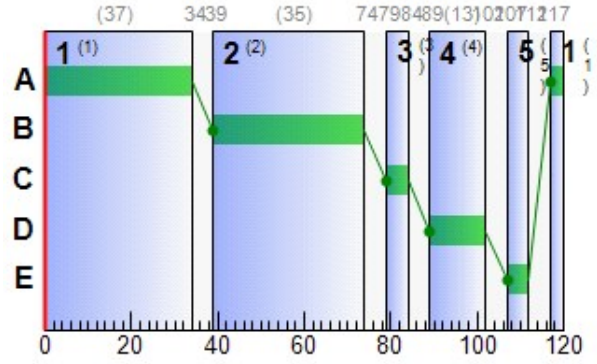
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

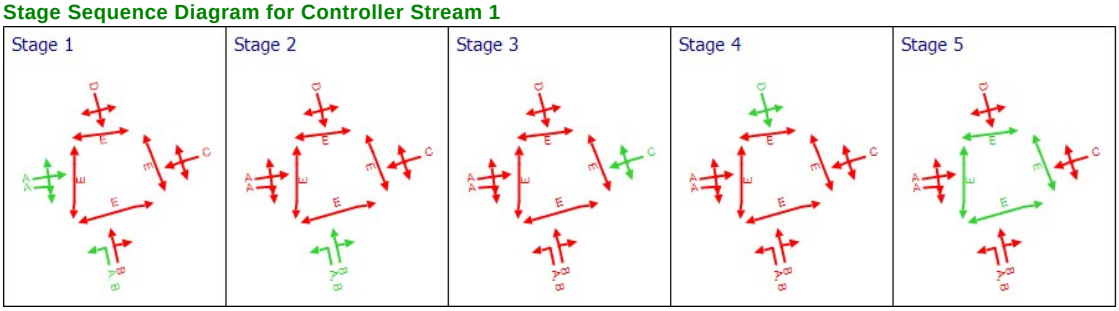
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	69	44	771	1800	72	16.63	16.42	157.33	50.58	6.61	57.19
		2	26	280	142	1800	35	33.11	3.64	26.14	18.55	1.35	19.89
	Bx	1	0	Unrestricted	577	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	56	78	320	1800	37	38.09	9.16	52.65	48.08	3.40	51.48
		2	45	124	254	1800	37	35.15	6.88	98.92	35.22	2.55	37.77
	Cx	1	0	Unrestricted	831	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	60	68	125	1800	13	62.62	4.35	8.34	30.88	1.62	32.49
	Dx	1	0	Unrestricted	208	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	574	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	913	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	771	771	0		1800	1110	69		44	0.00	72
		2	142	142	0		1800	540	26		280	0.00	35
	Bx	1	577	577	-1		Unrestricted	Unrestricted	0		Unrestricted	0.99	120
	C	1	320	320	-1		1800	570	56		78	0.00	37
		2	254	254	-1		1800	570	45		124	0.00	37
	Cx	1	831	831	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	125	125	0		1800	210	60		68	0.00	13
	Dx	1	208	208	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	120
	9	1	574	574	-1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	913	913	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	16.63	2.78	0.78	50.58	68.41	481.13	46.27	6.61
		2	9.60	33.11	1.26	0.05	18.55	75.62	105.97	1.40	1.35
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	38.09	3.03	0.36	48.08	84.69	260.40	10.61	3.40
		2	4.80	35.15	2.30	0.18	35.22	80.11	198.16	5.32	2.55
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	62.62	1.75	0.43	30.88	103.18	116.48	12.50	1.62
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	16.42	10.43	157.33	0.72	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.64	13.91	26.14	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	9.16	17.39	52.65	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	6.88	6.96	98.92	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	4.35	52.17	8.34	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	28.00	28.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	46.26	5.10	9.06	23.83
		2	11.36	1.68	6.74	42.71
	Bx	1	137.03	4.57	30.00	28.50
	C	1	32.00	4.45	7.19	50.09
		2	10.16	2.82	3.60	39.95
	Cx	1	160.16	5.34	30.00	23.13
	D	1	37.50	3.42	10.95	98.62
	Dx	1	33.42	1.11	30.00	19.28
	9	1	30.93	1.03	30.00	6.47
	10	1	37.12	1.24	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	16.42	0.79	9.78	1.00	0.00	57.19
		2	0.00	0.00	✓	3.64	0.05	3.36	1.00	0.00	19.89
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	9.16	0.36	7.65	1.00	0.00	51.48
		2	0.00	0.00	✓	6.88	0.18	5.96	1.00	0.00	37.77
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.36	0.43	4.11	1.00	0.00	32.49
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:32:42	24/03/2022 17:32:42	17:00	120	287.45	19.15	69.46	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	69	0	4719	919	9.89	184.18	15.57	199.75

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5119	5119	-3		69		44	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.40	13.46	17.35	1.79	271.88	24.26	1165.90	76.14	15.57

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	157.33	0.00	204.00	28.00	232.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	542.46	38.21	14.20

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	287.45

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	75.8	0.0	80.0	0.0	0.0	0.0	0.0
	2	121.8	0.0	0.0	127.1	0.0	0.0	0.0	0.0
	3	88.3	0.0	0.0	93.7	0.0	0.0	0.0	0.0
	4	51.8	66.9	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	66		127.12		66	127.12
7	2	1	59		121.75		59	121.75
8	3	2	0		0.00		0	0.00
9	3	4	3		93.65		3	93.65
10	3	1	1		88.28		1	88.28
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	254		74.92		254	74.92
21	1	4	254		85.06		254	85.06
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	66		75.84		66	75.84
46	4	1	771		51.84		771	51.84
47	4	3	0		0.00		0	0.00
48	4	2	142		66.87		142	66.87
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	771 <	1800	72	0.00	69	44	23.83	16.63	68.41	
	2	(untitled)	1	1	B		142	1800	35	0.00	26	280	42.71	33.11	75.62	
Bx	1	(untitled)					577	Unrestricted	120	34.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		320	1800	37	0.00	56	78	50.09	38.09	84.69	
	2	(untitled)	1	1	A		254	1800	37	0.00	45	124	39.95	35.15	80.11	
Cx	1	(untitled)					831	Unrestricted	120	4.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		125	1800	13	0.00	60	68	98.62	62.62	103.18	
Dx	1	(untitled)					208	Unrestricted	120	41.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				574	Unrestricted	120	0.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				913	Unrestricted	120	28.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	536.26	30.85	17.39	11.18	1.79	184.18	15.57	0.00	199.75
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	542.46	38.21	14.20	17.35	1.79	271.88	15.57	0.00	287.45

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - 2027 DO NOTHING
D5 - 2027 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:32:43	24/03/2022 17:32:44	17:00	120	277.48	18.51	65.68	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO NOTHING		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	729	729
	2	145	145
Bx	1	551	551
C	1	308	308
	2	241	241
Cx	1	791	791
D	1	128	128
Dx	1	212	212
9	1	548	548
10	1	874	874

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	67	0	481	0	0	0	0
	2	61	0	0	67	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	729	145	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	67
	7		2	1	D/1, Cx/1	Normal	61
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	241
	21		1	4	9/1, C/1, Bx/1	Normal	241
	43		1	2	9/1, C/1, Dx/1	Normal	67
	46		4	1	10/1, B/1, Cx/1	Normal	729
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	145

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

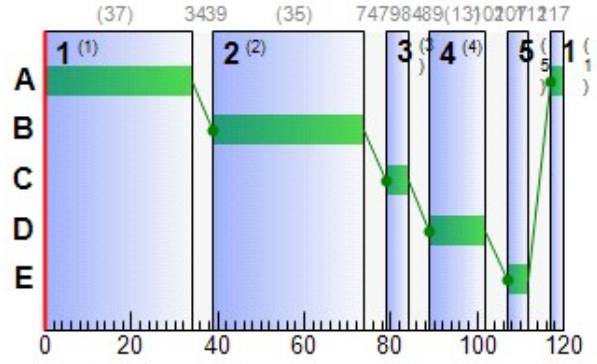
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

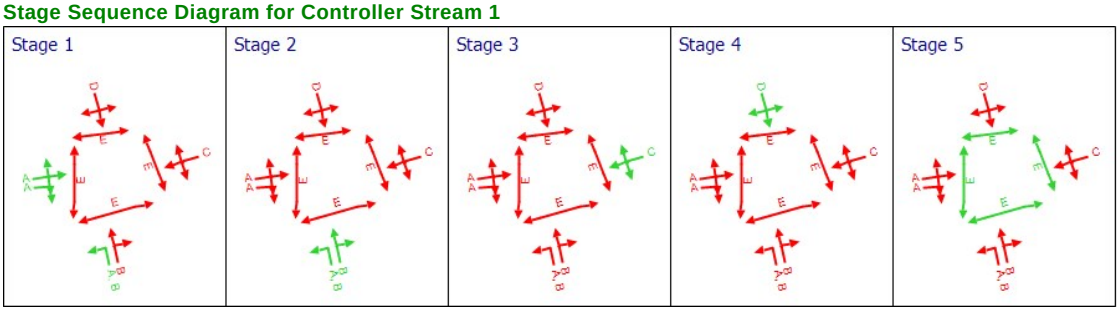
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	66	52	729	1800	72	15.55	14.80	141.82	44.71	5.95	50.67
		2	27	272	145	1800	35	33.21	3.71	26.70	18.99	1.38	20.37
	Bx	1	0	Unrestricted	552	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	54	85	308	1800	37	37.49	8.70	50.02	45.55	3.23	48.78
		2	42	137	241	1800	37	34.66	6.45	92.68	32.95	2.39	35.34
	Cx	1	0	Unrestricted	791	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	61	64	128	1800	13	63.45	4.52	8.66	32.03	1.67	33.71
	Dx	1	0	Unrestricted	212	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	549	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	874	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	729	729	0		1800	1110	66		52	0.00	72
		2	145	145	0		1800	540	27		272	0.00	35
	Bx	1	552	552	-1		Unrestricted	Unrestricted	0		Unrestricted	0.98	120
	C	1	308	308	-1		1800	570	54		85	0.00	37
		2	241	241	-1		1800	570	42		137	0.00	37
	Cx	1	791	791	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	128	128	0		1800	210	61		64	0.00	13
	Dx	1	212	212	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	120
	9	1	549	549	-1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	874	874	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	15.55	2.52	0.62	44.71	65.14	437.93	36.97	5.95
		2	9.60	33.21	1.29	0.05	18.99	75.77	108.39	1.47	1.38
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	37.49	2.89	0.32	45.55	83.65	248.25	9.39	3.23
		2	4.80	34.66	2.17	0.15	32.95	79.17	186.20	4.61	2.39
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	63.45	1.79	0.46	32.03	104.28	119.94	13.54	1.67
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	14.80	10.43	141.82	0.41	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.71	13.91	26.70	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	C	1	0.00	8.70	17.39	50.02	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	6.45	6.96	92.68	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	4.52	52.17	8.66	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	40.00	0.00	40.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	22.00	22.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	43.74	4.61	9.49	22.75
		2	11.60	1.72	6.73	42.81
	Bx	1	131.10	4.37	30.00	28.50
	C	1	30.80	4.23	7.27	49.49
		2	9.64	2.64	3.65	39.46
	Cx	1	152.45	5.08	30.00	23.13
	D	1	38.40	3.54	10.86	99.45
	Dx	1	34.06	1.14	30.00	19.28
	9	1	29.58	0.99	30.00	6.47
	10	1	35.53	1.18	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	14.80	0.63	9.13	1.00	0.00	50.67
		2	0.00	0.00	✓	3.71	0.05	3.43	1.00	0.00	20.37
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.70	0.32	7.33	1.00	0.00	48.78
		2	0.00	0.00	✓	6.45	0.15	5.64	1.00	0.00	35.34
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.52	0.47	4.24	1.00	0.00	33.71
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:32:43	24/03/2022 17:32:44	17:00	120	277.48	18.51	65.68	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	66	0	4533	919	9.79	175.11	14.68	189.79

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4933	4933	-3		66		52	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.45	13.51	16.90	1.61	262.81	23.73	1104.48	66.01	14.68

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	141.82	0.00	203.00	22.00	225.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	523.42	36.93	14.17

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	277.48

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	75.2	0.0	79.4	0.0	0.0	0.0	0.0
	2	122.6	0.0	0.0	127.9	0.0	0.0	0.0	0.0
	3	88.3	0.0	0.0	93.7	0.0	0.0	0.0	0.0
	4	50.8	67.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	67		127.94		67	127.94
7	2	1	61		122.57		61	122.57
8	3	2	0		0.00		0	0.00
9	3	4	3		93.65		3	93.65
10	3	1	1		88.28		1	88.28
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	241		74.42		241	74.42
21	1	4	241		84.46		241	84.46
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	67		75.24		67	75.24
46	4	1	729		50.76		729	50.76
47	4	3	0		0.00		0	0.00
48	4	2	145		66.97		145	66.97
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	729 <	1800	72	0.00	66	52	22.75	15.55	65.14	
	2	(untitled)	1	1	B		145	1800	35	0.00	27	272	42.81	33.21	75.77	
Bx	1	(untitled)					552	Unrestricted	120	35.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		308	1800	37	0.00	54	85	49.49	37.49	83.65	
	2	(untitled)	1	1	A		241	1800	37	0.00	42	137	39.46	34.66	79.17	
Cx	1	(untitled)					791	Unrestricted	120	3.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		128	1800	13	0.00	61	64	99.45	63.45	104.28	
Dx	1	(untitled)					212	Unrestricted	120	40.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				549	Unrestricted	120	0.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				874	Unrestricted	120	22.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	517.22	29.57	17.49	10.72	1.61	175.11	14.68	0.00	189.79
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	523.42	36.93	14.17	16.90	1.61	262.81	14.68	0.00	277.48

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - 2027 DO SOMETHING
D6 - 2027 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	24/03/2022 17:32:44	24/03/2022 17:32:45	17:00	120	313.75	20.85	76.13	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO SOMETHING		D6	✓	

Demand Set Details

2027 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	4	4
Ax	1	0	0
B	1	845	845
	2	145	145
Bx	1	624	624
C	1	344	344
	2	277	277
Cx	1	907	907
D	1	128	128
Dx	1	212	212
9	1	621	621
10	1	990	990

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	67	0	554	0	0	0	0
	2	61	0	0	67	0	0	0	0
	3	1	0	0	3	0	0	0	0
	4	845	145	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	67
	7		2	1	D/1, Cx/1	Normal	61
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	3
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	277
	21		1	4	9/1, C/1, Bx/1	Normal	277
	43		1	2	9/1, C/1, Dx/1	Normal	67
	46		4	1	10/1, B/1, Cx/1	Normal	845
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	145

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

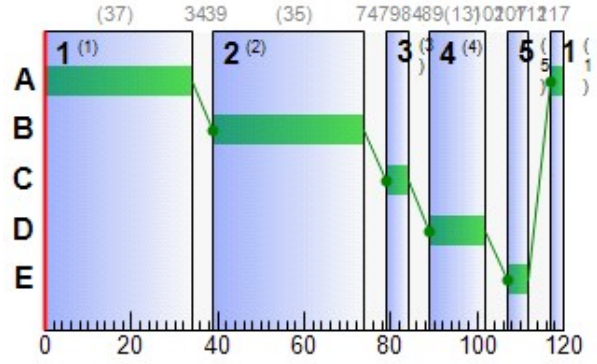
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

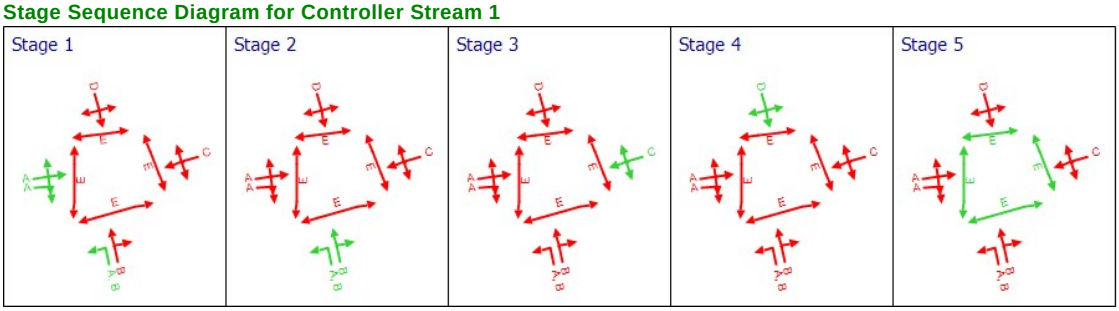
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	4	2150	4	1800	5	55.55	0.13	0.92	0.88	0.05	0.92
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	76	31	845	1800	72	19.08	19.74	189.17	63.58	8.01	71.59
		2	27	272	145	1800	35	33.21	3.71	26.70	18.99	1.38	20.37
	Bx	1	0	Unrestricted	624	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	60	66	344	1800	37	39.40	10.11	58.11	53.46	3.74	57.21
		2	49	106	277	1800	37	36.09	7.62	109.47	39.43	2.83	42.25
	Cx	1	0	Unrestricted	907	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	61	64	128	1800	13	63.45	4.52	8.66	32.03	1.67	33.71
	Dx	1	0	Unrestricted	212	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	621	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	990	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	4	4	0		1800	90	4		2150	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	845	845	0		1800	1110	76		31	0.00	72
		2	145	145	0		1800	540	27		272	0.00	35
	Bx	1	624	624	0		Unrestricted	Unrestricted	0		Unrestricted	1.00	120
	C	1	344	344	0		1800	570	60		66	0.00	37
		2	277	277	0		1800	570	49		106	0.00	37
	Cx	1	907	907	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	128	128	0		1800	210	61		64	0.00	13
	Dx	1	212	212	0		Unrestricted	Unrestricted	0		Unrestricted	0.87	120
	9	1	621	621	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	990	990	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.55	0.06	0.00	0.88	94.79	3.76	0.03	0.05
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	19.08	3.28	1.20	63.58	75.59	568.43	70.26	8.01
		2	9.60	33.21	1.29	0.05	18.99	75.77	108.39	1.47	1.38
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	39.40	3.31	0.46	53.46	86.78	284.99	13.52	3.74
		2	4.80	36.09	2.55	0.23	39.43	81.42	218.71	6.82	2.83
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	63.45	1.79	0.46	32.03	104.28	119.94	13.54	1.67
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.13	13.91	0.92	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	19.74	10.43	189.17	1.58	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.71	13.91	26.70	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	C	1	0.00	10.11	17.39	58.11	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	7.62	6.96	109.47	0.03	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	4.52	52.17	8.66	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	9.00	9.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	40.00	40.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.32	0.07	4.42	65.15
	Ax	1	0.00	0.00	0.00	0.00
	B	1	50.70	6.17	8.22	26.28
		2	11.60	1.72	6.73	42.81
	Bx	1	148.19	4.94	30.00	28.50
	C	1	34.40	4.91	7.00	51.40
		2	11.08	3.15	3.52	40.89
	Cx	1	174.81	5.83	30.00	23.13
	D	1	38.40	3.54	10.86	99.45
	Dx	1	34.06	1.14	30.00	19.28
	9	1	33.46	1.12	30.00	6.47
	10	1	40.25	1.34	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.13	0.00	0.13	1.00	0.00	0.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	19.75	1.20	11.06	1.00	0.00	71.59
		2	0.00	0.00	✓	3.71	0.05	3.43	1.00	0.00	20.37
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	10.11	0.46	8.29	1.00	0.00	57.21
		2	0.00	0.00	✓	7.62	0.23	6.54	1.00	0.00	42.25
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.52	0.47	4.24	1.00	0.00	33.71
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	24/03/2022 17:32:44	24/03/2022 17:32:45	17:00	120	313.75	20.85	76.13	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	76	0	5097	919	10.36	208.38	17.68	226.05

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5497	5497	0		76		31	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.38	13.65	18.46	2.39	296.08	25.65	1304.22	105.63	17.68

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	189.17	0.00	202.00	49.00	251.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	583.48	41.28	14.14

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	313.75

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	77.1	0.0	81.1	0.0	0.0	0.0	0.0
	2	122.6	0.0	0.0	127.9	0.0	0.0	0.0	0.0
	3	88.3	0.0	0.0	93.7	0.0	0.0	0.0	0.0
	4	54.3	67.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	67		127.94		67	127.94
7	2	1	61		122.57		61	122.57
8	3	2	0		0.00		0	0.00
9	3	4	3		93.65		3	93.65
10	3	1	1		88.28		1	88.28
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	277		75.85		277	75.85
21	1	4	277		86.37		277	86.37
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	67		77.15		67	77.15
46	4	1	845		54.28		845	54.28
47	4	3	0		0.00		0	0.00
48	4	2	145		66.97		145	66.97
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		4	1800	5	5.00	4	2150	65.15	55.55	94.79	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	845 <	1800	72	0.00	76	31	26.28	19.08	75.59	
	2	(untitled)	1	1	B		145	1800	35	0.00	27	272	42.81	33.21	75.77	
Bx	1	(untitled)					624	Unrestricted	120	33.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		344	1800	37	0.00	60	66	51.40	39.40	86.78	
	2	(untitled)	1	1	A		277 <	1800	37	0.00	49	106	40.89	36.09	81.42	
Cx	1	(untitled)					907	Unrestricted	120	3.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		128	1800	13	0.00	61	64	99.45	63.45	104.28	
Dx	1	(untitled)					212	Unrestricted	120	41.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				621	Unrestricted	120	9.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				990	Unrestricted	120	40.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	577.28	33.92	17.02	12.28	2.39	208.38	17.68	0.00	226.05
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	583.48	41.28	14.14	18.46	2.39	296.08	17.68	0.00	313.75

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - 2032 DO NOTHING
D7 - 2032 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	24/03/2022 17:32:45	24/03/2022 17:32:46	17:00	120	293.39	19.55	69.01	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO NOTHING		D7	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	0	0
B	1	766	766
	2	152	152
Bx	1	580	580
C	1	324	324
	2	253	253
Cx	1	831	831
D	1	135	135
Dx	1	223	223
9	1	576	576
10	1	918	918

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	71	0	505	0	0	0	0
	2	64	0	0	71	0	0	0	0
	3	1	0	0	4	0	0	0	0
	4	766	152	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	71
	7		2	1	D/1, Cx/1	Normal	64
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	253
	21		1	4	9/1, C/1, Bx/1	Normal	253
	43		1	2	9/1, C/1, Dx/1	Normal	71
	46		4	1	10/1, B/1, Cx/1	Normal	766
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	152

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

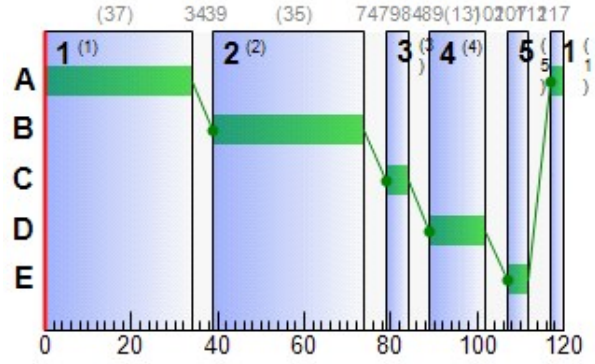
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

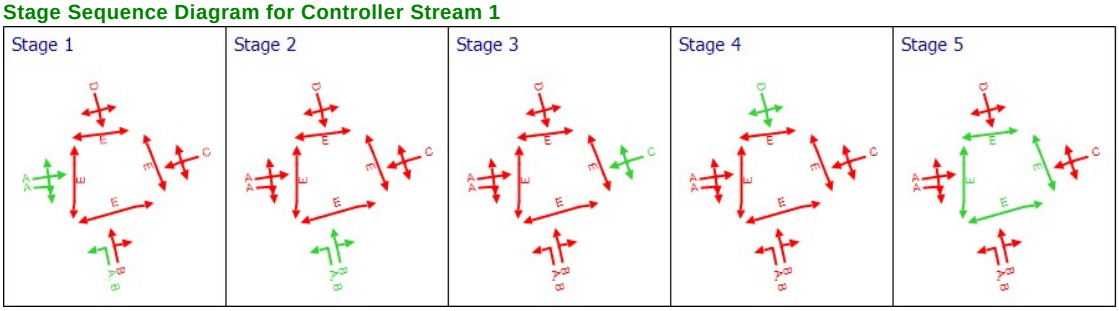
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	6	1700	5	1800	5	55.80	0.16	1.15	1.10	0.06	1.16
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	69	45	766	1800	72	16.49	16.29	156.16	49.83	6.52	56.36
		2	28	255	152	1800	35	33.42	3.90	28.01	20.04	1.45	21.49
	Bx	1	0	Unrestricted	581	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	57	76	324	1800	37	38.29	9.28	53.37	48.94	3.45	52.39
		2	44	125	253	1800	37	35.12	6.85	98.51	35.04	2.54	37.58
	Cx	1	0	Unrestricted	831	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	64	56	135	1800	13	65.57	4.84	9.27	34.92	1.80	36.71
	Dx	1	0	Unrestricted	223	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	577	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	918	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	5	5	0		1800	90	6		1700	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	766	766	0		1800	1110	69		45	0.00	72
		2	152	152	0		1800	540	28		255	0.00	35
	Bx	1	581	581	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.98	120
	C	1	324	324	-1	✓	1800	570	57		76	0.00	37
		2	253	253	-1	✓	1800	570	44		125	0.00	37
	Cx	1	831	831	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	135	135	0		1800	210	64		56	0.00	13
	Dx	1	223	223	0		Unrestricted	Unrestricted	0		Unrestricted	0.87	120
	9	1	577	577	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	918	918	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.80	0.08	0.00	1.10	94.99	4.70	0.05	0.06
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	16.49	2.75	0.76	49.83	67.94	475.35	45.04	6.52
		2	9.60	33.42	1.36	0.06	20.04	75.93	113.76	1.65	1.45
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	38.29	3.08	0.37	48.94	84.85	263.86	11.05	3.45
		2	4.80	35.12	2.29	0.18	35.04	80.06	197.29	5.27	2.54
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	65.57	1.90	0.56	34.92	106.08	126.90	16.31	1.80
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.16	13.91	1.15	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	16.29	10.43	156.16	0.70	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.90	13.91	28.01	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	9.28	17.39	53.37	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	6.85	6.96	98.51	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	4.84	52.17	9.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	40.00	0.00	40.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	28.00	28.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.40	0.09	4.40	65.40
	Ax	1	0.00	0.00	0.00	0.00
	B	1	45.96	5.04	9.12	23.69
		2	12.16	1.82	6.69	43.02
	Bx	1	137.98	4.60	30.00	28.50
	C	1	32.40	4.53	7.16	50.29
		2	10.12	2.81	3.61	39.92
	Cx	1	160.16	5.34	30.00	23.13
	D	1	40.50	3.81	10.63	101.57
	Dx	1	35.83	1.19	30.00	19.28
	9	1	31.09	1.04	30.00	6.47
	10	1	37.32	1.24	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.16
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	16.30	0.77	9.70	1.00	0.00	56.36
		2	0.00	0.00	✓	3.90	0.06	3.60	1.00	0.00	21.49
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	9.28	0.37	7.75	1.00	0.00	52.39
		2	0.00	0.00	✓	6.85	0.18	5.94	1.00	0.00	37.58
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.84	0.57	4.54	1.00	0.00	36.71
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	24/03/2022 17:32:45	24/03/2022 17:32:46	17:00	120	293.39	19.55	69.01	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	69	0	4765	919	10.10	189.87	15.81	205.69

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5165	5165	-3	✓	69		45	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.46	13.62	17.62	1.93	277.57	24.42	1181.87	79.35	15.81

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	156.16	0.00	202.00	28.00	230.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	550.12	38.86	14.16

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	293.39

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	76.0	0.0	80.1	0.0	0.0	0.0	0.0
	2	124.7	0.0	0.0	130.1	0.0	0.0	0.0	0.0
	3	88.5	0.0	0.0	93.9	0.0	0.0	0.0	0.0
	4	51.7	67.2	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	71		130.07		71	130.07
7	2	1	64		124.70		64	124.70
8	3	2	0		0.00		0	0.00
9	3	4	4		93.90		4	93.90
10	3	1	1		88.53		1	88.53
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	253		74.88		253	74.88
21	1	4	253		85.26		253	85.26
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	71		76.04		71	76.04
46	4	1	766		51.70		766	51.70
47	4	3	0		0.00		0	0.00
48	4	2	152		67.18		152	67.18
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	5.00	6	1700	65.40	55.80	94.99	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	766 <	1800	72	0.00	69	45	23.69	16.49	67.94	
	2	(untitled)	1	1	B		152	1800	35	0.00	28	255	43.02	33.42	75.93	
Bx	1	(untitled)					581	Unrestricted	120	34.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		324	1800	37	0.00	57	76	50.29	38.29	84.85	
	2	(untitled)	1	1	A		253	1800	37	0.00	44	125	39.92	35.12	80.06	
Cx	1	(untitled)					831	Unrestricted	120	3.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		135	1800	13	0.00	64	56	101.57	65.57	106.08	
Dx	1	(untitled)					223	Unrestricted	120	40.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				577	Unrestricted	120	0.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				918	Unrestricted	120	28.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	543.92	31.50	17.27	11.44	1.93	189.87	15.81	0.00	205.69
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	550.12	38.86	14.16	17.62	1.93	277.57	15.81	0.00	293.39

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A8 - 2032 DO SOMETHING
D8 - 2032 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	24/03/2022 17:32:46	24/03/2022 17:32:47	17:00	120	334.90	22.26	79.55	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO SOMETHING		D8	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	0	0
B	1	883	883
	2	152	152
Bx	1	654	654
C	1	361	361
	2	290	290
Cx	1	948	948
D	1	135	135
Dx	1	223	223
9	1	650	650
10	1	1035	1035

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	71	0	579	0	0	0	0
	2	64	0	0	71	0	0	0	0
	3	1	0	0	4	0	0	0	0
	4	883	152	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	71
	7		2	1	D/1, Cx/1	Normal	64
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	290
	21		1	4	9/1, C/1, Bx/1	Normal	290
	43		1	2	9/1, C/1, Dx/1	Normal	71
	46		4	1	10/1, B/1, Cx/1	Normal	883
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	152

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

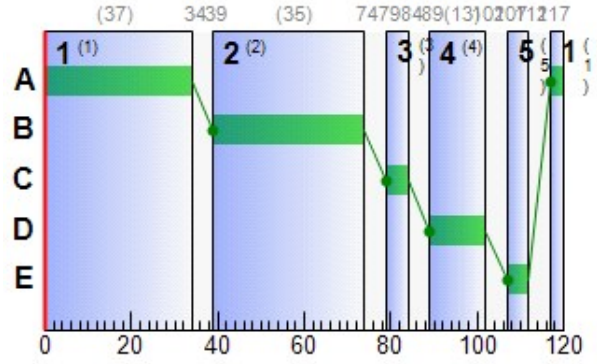
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

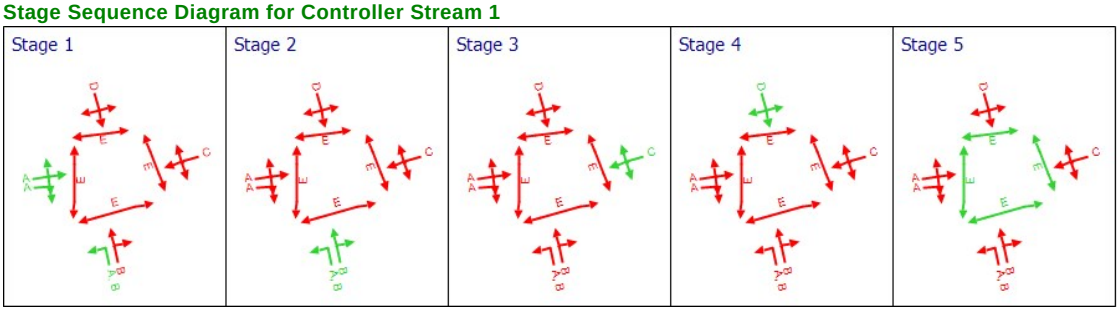
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
	A	1	6	1700	5	1800	5	55.80	0.16	1.15	1.10	0.06	1.16
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		1	80	26	883	1800	72	20.91	21.38	204.93	72.82	8.51	81.33
17:00-18:00	Bx	1	0	Unrestricted	655	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	63	58	361	1800	37	40.44	10.77	61.92	57.59	3.99	61.58
		2	51	97	290	1800	37	36.65	8.08	116.09	41.93	3.00	44.93
	Cx	1	0	Unrestricted	948	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	64	56	135	1800	13	65.57	4.84	9.27	34.92	1.80	36.71
	Dx	1	0	Unrestricted	223	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	651	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	1035	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	5	5	0		1800	90	6		1700	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	883	883	0		1800	1110	80		26	0.00	72
		2	152	152	0		1800	540	28		255	0.00	35
	Bx	1	655	655	-1		Unrestricted	Unrestricted	0		Unrestricted	1.00	120
	C	1	361	361	-1		1800	570	63		58	0.00	37
		2	290	290	-1		1800	570	51		97	0.00	37
	Cx	1	948	948	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	135	135	0		1800	210	64		56	0.00	13
	Dx	1	223	223	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	120
	9	1	651	651	-1		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	1035	1035	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.80	0.08	0.00	1.10	94.99	4.70	0.05	0.06
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	20.91	3.61	1.52	72.82	76.87	633.86	44.91	8.51
		2	9.60	33.42	1.36	0.06	20.04	75.93	113.76	1.65	1.45
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	40.44	3.51	0.54	57.59	88.21	302.41	16.05	3.99
		2	4.80	36.65	2.69	0.26	41.93	82.43	231.25	7.81	3.00
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	65.57	1.90	0.56	34.92	106.08	126.90	16.31	1.80
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.16	13.91	1.15	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	21.38	10.43	204.93	2.08	0.00	0.00	0.00	0.00	0.00	
		2	0.00	3.90	13.91	28.01	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	C	1	0.00	10.77	17.39	61.92	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	8.08	6.96	116.09	0.07	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	3.00	0.00	3.00	
	D	1	0.00	4.84	52.17	9.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	40.00	0.00	40.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	14.00	14.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	45.00	45.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.40	0.09	4.40	65.40
	Ax	1	0.00	0.00	0.00	0.00
	B	1	52.98	6.89	7.68	28.11
		2	12.16	1.82	6.69	43.02
	Bx	1	155.56	5.19	30.00	28.50
	C	1	36.10	5.26	6.86	52.44
		2	11.60	3.34	3.47	41.45
	Cx	1	182.71	6.09	30.00	23.13
	D	1	40.50	3.81	10.63	101.57
	Dx	1	35.83	1.19	30.00	19.28
	9	1	35.08	1.17	30.00	6.47
	10	1	42.08	1.40	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.16
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	21.40	2.15	11.83	1.00	0.00	81.33
		2	0.00	0.00	✓	3.90	0.06	3.60	1.00	0.00	21.49
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	10.77	0.54	8.77	1.00	0.00	61.58
		2	0.00	0.00	✓	8.08	0.26	6.87	1.00	0.00	44.93
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.84	0.57	4.54	1.00	0.00	36.71
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	24/03/2022 17:32:46	24/03/2022 17:32:47	17:00	120	334.90	22.26	79.55	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	80	0	5338	919	10.85	228.39	18.80	247.20

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5738	5738	-3		80		26	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.40	13.97	19.32	2.94	316.09	26.14	1412.89	86.76	18.80

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	204.93	0.00	201.00	59.00	260.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	611.19	43.61	14.01

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	334.90

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	78.2	0.0	81.9	0.0	0.0	0.0	0.0
	2	124.7	0.0	0.0	130.1	0.0	0.0	0.0	0.0
	3	88.5	0.0	0.0	93.9	0.0	0.0	0.0	0.0
	4	56.1	67.2	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	71		130.07		71	130.07
7	2	1	64		124.70		64	124.70
8	3	2	0		0.00		0	0.00
9	3	4	4		93.90		4	93.90
10	3	1	1		88.53		1	88.53
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	290		76.42		290	76.42
21	1	4	290		87.41		290	87.41
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	71		78.19		71	78.19
46	4	1	883		56.11		883	56.11
47	4	3	0		0.00		0	0.00
48	4	2	152		67.18		152	67.18
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	5.00	6	1700	65.40	55.80	94.99	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	883 <	1800	72	0.00	80	26	28.11	20.91	76.87	
	2	(untitled)	1	1	B		152	1800	35	0.00	28	255	43.02	33.42	75.93	
Bx	1	(untitled)					655	Unrestricted	120	33.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		361	1800	37	0.00	63	58	52.44	40.44	88.21	
	2	(untitled)	1	1	A		290 <	1800	37	0.00	51	97	41.45	36.65	82.43	
Cx	1	(untitled)					948	Unrestricted	120	3.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		135	1800	13	0.00	64	56	101.57	65.57	106.08	
Dx	1	(untitled)					223	Unrestricted	120	40.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				651	Unrestricted	120	14.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				1035	Unrestricted	120	45.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	604.99	36.25	16.69	13.15	2.94	228.39	18.80	0.00	247.20
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	611.19	43.61	14.01	19.32	2.94	316.09	18.80	0.00	334.90

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A9 - 2042 DO NOTHING
D9 - 2042 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	24/03/2022 17:32:47	24/03/2022 17:32:48	17:00	120	304.41	20.27	71.35	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO NOTHING		D9	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	0	0
B	1	792	792
	2	157	157
Bx	1	599	599
C	1	334	334
	2	261	261
Cx	1	859	859
D	1	139	139
Dx	1	230	230
9	1	595	595
10	1	949	949

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	73	0	522	0	0	0	0
	2	66	0	0	73	0	0	0	0
	3	1	0	0	4	0	0	0	0
	4	792	157	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	73
	7		2	1	D/1, Cx/1	Normal	66
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	261
	21		1	4	9/1, C/1, Bx/1	Normal	261
	43		1	2	9/1, C/1, Dx/1	Normal	73
	46		4	1	10/1, B/1, Cx/1	Normal	792
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	157

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

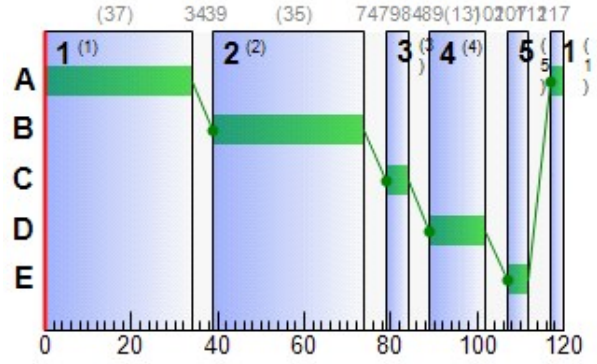
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

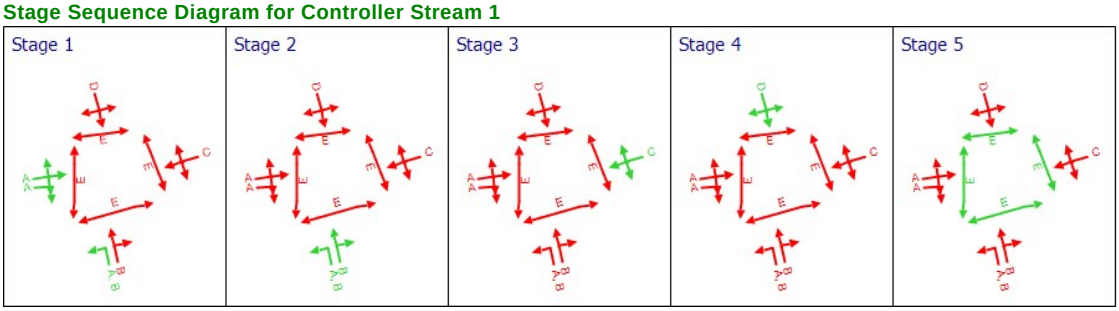
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	6	1700	5	1800	5	55.80	0.16	1.15	1.10	0.06	1.16
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	71	40	792	1800	72	17.24	17.16	164.45	53.87	6.97	60.84
		2	29	244	157	1800	35	33.57	4.07	29.27	20.79	1.50	22.29
	Bx	1	0	Unrestricted	599	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	59	71	334	1800	37	38.84	9.69	55.71	51.16	3.59	54.76
		2	46	118	261	1800	37	35.43	7.08	101.78	36.47	2.63	39.10
	Cx	1	0	Unrestricted	859	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	66	51	139	1800	13	66.93	5.03	9.64	36.70	1.87	38.56
	Dx	1	0	Unrestricted	230	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	595	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	949	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	5	5	0		1800	90	6		1700	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	792	792	0		1800	1110	71		40	0.00	72
		2	157	157	0		1800	540	29		244	0.00	35
	Bx	1	599	599	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	120
	C	1	334	334	0		1800	570	59		71	0.00	37
		2	261	261	0		1800	570	46		118	0.00	37
	Cx	1	859	859	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	139	139	0		1800	210	66		51	0.00	13
	Dx	1	230	230	0		Unrestricted	Unrestricted	0		Unrestricted	0.87	120
	9	1	595	595	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	949	949	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.80	0.08	0.00	1.10	94.99	4.70	0.05	0.06
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	17.24	2.91	0.88	53.87	70.21	504.19	51.91	6.97
		2	9.60	33.57	1.40	0.06	20.79	76.11	117.71	1.78	1.50
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	38.84	3.19	0.41	51.16	85.84	274.48	12.22	3.59
		2	4.80	35.43	2.38	0.19	36.47	80.33	203.92	5.75	2.63
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	66.93	1.96	0.63	36.70	107.06	130.68	18.14	1.87
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.16	13.91	1.15	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	17.16	10.43	164.45	0.88	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.07	13.91	29.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	9.69	17.39	55.71	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	7.08	6.96	101.78	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	2.00	0.00	2.00	
	D	1	0.00	5.03	52.17	9.64	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	38.00	0.00	38.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	2.00	2.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	31.00	31.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.40	0.09	4.40	65.40
	Ax	1	0.00	0.00	0.00	0.00
	B	1	47.52	5.38	8.84	24.44
		2	12.56	1.88	6.67	43.17
	Bx	1	142.26	4.74	30.00	28.50
	C	1	33.40	4.72	7.08	50.84
		2	10.44	2.92	3.58	40.23
	Cx	1	165.56	5.52	30.00	23.13
	D	1	41.70	3.97	10.49	102.93
	Dx	1	36.95	1.23	30.00	19.28
	9	1	32.06	1.07	30.00	6.47
	10	1	38.58	1.29	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.16
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	17.16	0.88	10.12	1.00	0.00	60.84
		2	0.00	0.00	✓	4.07	0.06	3.72	1.00	0.00	22.29
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	9.69	0.41	8.02	1.00	0.00	54.76
		2	0.00	0.00	✓	7.08	0.19	6.14	1.00	0.00	39.10
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.04	0.64	4.73	1.00	0.00	38.56
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	24/03/2022 17:32:47	24/03/2022 17:32:48	17:00	120	304.41	20.27	71.35	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	71	0	4920	919	10.31	200.09	16.62	216.71

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5320	5320	0		71		40	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.47	13.71	18.10	2.17	287.79	24.92	1235.68	89.85	16.62

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	164.45	0.00	199.00	33.00	232.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	567.63	40.17	14.13

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	304.41

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	76.6	0.0	80.5	0.0	0.0	0.0	0.0
	2	126.1	0.0	0.0	131.4	0.0	0.0	0.0	0.0
	3	88.5	0.0	0.0	93.9	0.0	0.0	0.0	0.0
	4	52.5	67.3	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	73		131.43		73	131.43
7	2	1	66		126.06		66	126.06
8	3	2	0		0.00		0	0.00
9	3	4	4		93.90		4	93.90
10	3	1	1		88.53		1	88.53
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	261		75.19		261	75.19
21	1	4	261		85.80		261	85.80
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	73		76.58		73	76.58
46	4	1	792		52.45		792	52.45
47	4	3	0		0.00		0	0.00
48	4	2	157		67.33		157	67.33
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	5.00	6	1700	65.40	55.80	94.99	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	792 <	1800	72	0.00	71	40	24.44	17.24	70.21	
	2	(untitled)	1	1	B		157	1800	35	0.00	29	244	43.17	33.57	76.11	
Bx	1	(untitled)					599	Unrestricted	120	34.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		334	1800	37	0.00	59	71	50.84	38.84	85.84	
	2	(untitled)	1	1	A		261 <	1800	37	0.00	46	118	40.23	35.43	80.33	
Cx	1	(untitled)					859	Unrestricted	120	2.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		139	1800	13	0.00	66	51	102.93	66.93	107.06	
Dx	1	(untitled)					230	Unrestricted	120	38.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				595	Unrestricted	120	2.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				949	Unrestricted	120	31.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	561.43	32.81	17.11	11.92	2.17	200.09	16.62	0.00	216.71
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	567.63	40.17	14.13	18.10	2.17	287.79	16.62	0.00	304.41

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A10 - 2042 DO SOMETHING
D10 - 2042 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	24/03/2022 17:32:49	24/03/2022 17:32:49	17:00	120	349.94	23.25	81.80	B/1	0	0	B/1	Dx/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO SOMETHING		D10	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9	(untitled)		1
10	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Ax	1	(untitled)		✓	135.20						Normal	
B	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			80.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)		✓	237.49						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal	
Cx	1	(untitled)		✓	192.74						Normal	
D	1	(untitled)			300.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)		✓	160.66						Normal	
9	1	(untitled)		✓	53.89						Normal	
10	1	(untitled)		✓	40.65						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			
10	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	5	5
Ax	1	0	0
B	1	908	908
	2	157	157
Bx	1	673	673
C	1	371	371
	2	298	298
Cx	1	975	975
D	1	139	139
Dx	1	230	230
9	1	669	669
10	1	1065	1065

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
B	1	1	A	✓	B
	2	1	B		
C	1	1	A		
	2	1	A		
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	9.60	30.00
D	1	36.00	30.00
9	1	6.47	30.00
10	1	4.88	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.22	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	9.60	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	28.50	30.00	✓	Nearside	34.20
C	1	1	9/1	C/1	12.00	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	4.80	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	23.13	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	19.28	30.00	✓	Nearside	33.79
Ax	1	2	D/1	Ax/1	16.22	30.00	✓	Nearside	40.76
Bx	1	2	D/1	Bx/1	28.50	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	23.13	30.00	✓	Nearside	38.42
Dx	1	2	A/1	Dx/1	19.28	30.00	✓	Offside	50.28
Ax	1	3	B/2	Ax/1	16.22	30.00	✓	Offside	55.72
Bx	1	3	C/2	Bx/1	28.50	30.00	✓	Offside	41.61
Cx	1	3	D/1	Cx/1	23.13	30.00	✓	Offside	50.59
Dx	1	3	B/2	Dx/1	19.28	30.00	✓	Straight	Straight Movement
Bx	1	4	C/1	Bx/1	28.50	30.00	✓	Offside	49.56

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	20.00	13.33	5.40
2	(untitled)		1		Farside	20.00	13.33	5.40
3	(untitled)		1		Farside	10.00	6.67	5.40
4	(untitled)		1		Farside	8.00	5.33	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	73	0	596	0	0	0	0
	2	66	0	0	73	0	0	0	0
	3	1	0	0	4	0	0	0	0
	4	908	157	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	A/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	1:2E, 2:1E	1:2X, 2:1X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	5		2	3	D/1, Ax/1	Normal	0
	6		2	4	D/1, Bx/1	Normal	73
	7		2	1	D/1, Cx/1	Normal	66
	8		3	2	A/1, Dx/1	Normal	0
	9		3	4	A/1, Bx/1	Normal	4
	10		3	1	A/1, Cx/1	Normal	1
	19		1	3	9/1, C/1, Ax/1	Normal	0
	20		1	4	9/1, C/2, Bx/1	Normal	298
	21		1	4	9/1, C/1, Bx/1	Normal	298
	43		1	2	9/1, C/1, Dx/1	Normal	73
	46		4	1	10/1, B/1, Cx/1	Normal	908
	47		4	3	10/1, B/2, Ax/1	Normal	0
	48		4	2	10/1, B/2, Dx/1	Normal	157

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		5	6	1:1E, 1:2X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50
	49		6	5	1:2E, 1:1X	Normal	50
	50		8	6	2:2E, 2:1X	Normal	50
	51		6	8	2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	5	55	0	0	Traffic	
	B	(untitled)	35	70	0	0	Traffic	
	C	(untitled)	5	70	0	0	Traffic	
	D	(untitled)	5	70	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	34, 74, 84, 102, 112

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	117	34	37	1	5
	2	✓	2	B	39	74	35	1	35
	3	✓	3	C	79	84	5	1	5
	4	✓	4	D	89	102	13	1	5
	5	✓	5	E	107	112	5	1	5

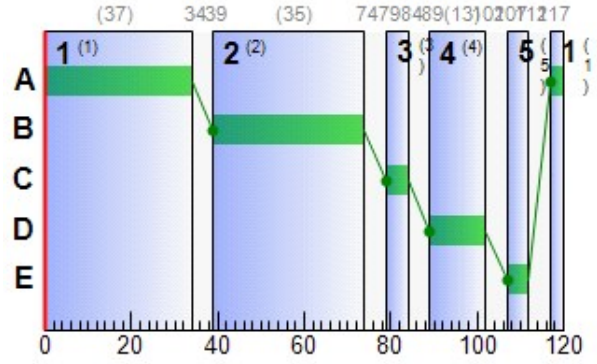
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	117	34	37
	B	1	✓	39	74	35
	C	1	✓	79	84	5
	D	1	✓	89	102	13
	E	1	✓	107	112	5

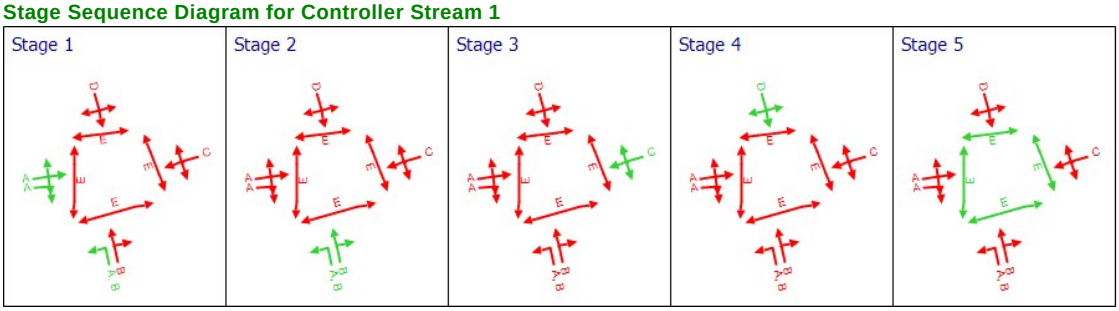
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	79	84	5
B	1	1	1	A	117	34	37
B	2	1	1	B	39	74	35
C	1	1	1	A	117	34	37
C	2	1	1	A	117	34	37
D	1	1	1	D	89	102	13

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	6	1700	5	1800	5	55.80	0.16	1.15	1.10	0.06	1.16
	Ax	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	82	22	908	1800	72	22.39	22.47	215.38	80.18	9.12	89.30
		2	29	244	157	1800	35	33.57	4.07	29.27	20.79	1.50	22.29
	Bx	1	0	Unrestricted	673	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	65	54	371	1800	37	41.11	11.21	64.48	60.16	4.15	64.31
		2	52	91	298	1800	37	37.02	8.40	120.71	43.51	3.11	46.62
	Cx	1	0	Unrestricted	975	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	66	51	139	1800	13	66.93	5.03	9.64	36.70	1.87	38.56
	Dx	1	0	Unrestricted	230	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	669	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	0	Unrestricted	1065	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	5	5	0		1800	90	6		1700	0.00	5
	Ax	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	B	1	908	908	0		1800	1110	82		22	0.00	72
		2	157	157	0		1800	540	29		244	0.00	35
	Bx	1	673	673	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	120
	C	1	371	371	0		1800	570	65		54	0.00	37
		2	298	298	0		1800	570	52		91	0.00	37
	Cx	1	975	975	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	139	139	0		1800	210	66		51	0.00	13
	Dx	1	230	230	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	120
	9	1	669	669	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120
	10	1	1065	1065	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	9.60	55.80	0.08	0.00	1.10	94.99	4.70	0.05	0.06
	Ax	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	7.20	22.39	3.85	1.79	80.18	80.14	674.67	52.98	9.12
		2	9.60	33.57	1.40	0.06	20.79	76.11	117.71	1.78	1.50
	Bx	1	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	41.11	3.64	0.60	60.16	89.21	313.21	17.76	4.15
		2	4.80	37.02	2.78	0.28	43.51	83.17	239.37	8.48	3.11
	Cx	1	23.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	36.00	66.93	1.96	0.63	36.70	107.06	130.68	18.14	1.87
	Dx	1	19.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.16	13.91	1.15	0.00	0.00	0.00	5.00	0.00	5.00	
	Ax	1	0.00	0.00	23.51	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	B	1	0.00	22.47	10.43	215.38	2.44	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.07	13.91	29.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	82.61	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	C	1	0.00	11.21	17.39	64.48	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	8.40	6.96	120.71	0.11	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	33.52	0.00	0.00	0.00	0.00	2.00	0.00	2.00	
	D	1	0.00	5.03	52.17	9.64	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	27.94	0.00	0.00	0.00	0.00	39.00	0.00	39.00	
	9	1	0.00	0.00	9.37	0.00	0.00	0.00	0.00	0.00	18.00	18.00	
	10	1	0.00	0.00	7.07	0.00	0.00	0.00	0.00	0.00	48.00	48.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	0.40	0.09	4.40	65.40
	Ax	1	0.00	0.00	0.00	0.00
	B	1	54.48	7.46	7.30	29.59
		2	12.56	1.88	6.67	43.17
	Bx	1	159.83	5.33	30.00	28.50
	C	1	37.10	5.47	6.78	53.11
		2	11.92	3.46	3.44	41.82
	Cx	1	187.92	6.26	30.00	23.13
	D	1	41.70	3.97	10.49	102.93
	Dx	1	36.95	1.23	30.00	19.28
	9	1	36.05	1.20	30.00	6.47
	10	1	43.30	1.44	30.00	4.88

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.16
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	22.50	2.99	12.41	1.00	0.00	89.30
		2	0.00	0.00	✓	4.07	0.06	3.72	1.00	0.00	22.29
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	11.22	0.60	9.05	1.00	0.00	64.31
		2	0.00	0.00	✓	8.40	0.29	7.07	1.00	0.00	46.62
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.04	0.64	4.73	1.00	0.00	38.56
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	11	50	11000	5	55.58	1.60	10.96	10.96

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	458	11		817	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	2	1	14.33	55.58	0.77	0.00	10.96
		2	14.33	55.58	0.77	0.00	10.96
	3	1	7.67	55.58	0.77	0.00	10.96
		2	7.67	55.58	0.77	0.00	10.96
	4	1	6.33	55.58	0.77	0.00	10.96
		2	6.33	55.58	0.77	0.00	10.96

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.60	10.00	15.97	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	2	1	1.05	0.97	1.08	69.92
		2	1.05	0.97	1.08	69.92
	3	1	0.55	0.88	0.63	63.25
		2	0.55	0.88	0.63	63.25
	4	1	0.45	0.86	0.52	61.92
		2	0.45	0.86	0.52	61.92

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.60	1.00	0.00	10.96

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	24/03/2022 17:32:49	24/03/2022 17:32:49	17:00	120	349.94	23.25	81.80	B/1	0	0	B/1	Dx/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	82	0	5490	919	11.20	242.44	19.81	262.25

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	11	400	40	55.58	87.70	87.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5890	5890	0		82		22	959

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	13.40	14.21	19.89	3.36	330.14	26.82	1480.35	99.19	19.81

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	215.38	0.00	198.00	66.00	264.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	628.41	45.17	13.91

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	349.94

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	78.9	0.0	82.4	0.0	0.0	0.0	0.0
	2	126.1	0.0	0.0	131.4	0.0	0.0	0.0	0.0
	3	88.5	0.0	0.0	93.9	0.0	0.0	0.0	0.0
	4	57.6	67.3	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.9	63.3	0.0
	6	0.0	0.0	0.0	0.0	69.9	0.0	0.0	69.9
	7	0.0	0.0	0.0	0.0	63.3	0.0	0.0	61.9
	8	0.0	0.0	0.0	0.0	0.0	69.9	61.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
5	2	3	0		0.00		0	0.00
6	2	4	73		131.43		73	131.43
7	2	1	66		126.06		66	126.06
8	3	2	0		0.00		0	0.00
9	3	4	4		93.90		4	93.90
10	3	1	1		88.53		1	88.53
17	8	7		50		61.92	50	61.92
18	5	6		50		69.92	50	69.92
19	1	3	0		0.00		0	0.00
20	1	4	298		76.78		298	76.78
21	1	4	298		88.07		298	88.07
22	5	7		50		63.25	50	63.25
41	7	8		50		61.92	50	61.92
42	7	5		50		63.25	50	63.25
43	1	2	73		78.85		73	78.85
46	4	1	908		57.59		908	57.59
47	4	3	0		0.00		0	0.00
48	4	2	157		67.33		157	67.33
49	6	5		50		69.92	50	69.92
50	8	6		50		69.92	50	69.92
51	6	8		50		69.92	50	69.92

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		5	1800	5	5.00	6	1700	65.40	55.80	94.99	
Ax	1	(untitled)					0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	
B	1	(untitled)	1	1	A	B	908 <	1800	72	0.00	82	22	29.59	22.39	80.14	
	2	(untitled)	1	1	B		157	1800	35	0.00	29	244	43.17	33.57	76.11	
Bx	1	(untitled)					673	Unrestricted	120	32.00	0	Unrestricted	28.50	0.00	0.00	
C	1	(untitled)	1	1	A		371	1800	37	0.00	65	54	53.11	41.11	89.21	
	2	(untitled)	1	1	A		298 <	1800	37	0.00	52	91	41.82	37.02	83.17	
Cx	1	(untitled)					975	Unrestricted	120	2.00	0	Unrestricted	23.13	0.00	0.00	
D	1	(untitled)	1	1	D		139	1800	13	0.00	66	51	102.93	66.93	107.06	
Dx	1	(untitled)					230	Unrestricted	120	39.00	0	Unrestricted	19.28	0.00	0.00	
9	1	(untitled)	1				669	Unrestricted	120	18.00	0	Unrestricted	6.47	0.00	0.00	
10	1	(untitled)	1				1065	Unrestricted	120	48.00	0	Unrestricted	4.88	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
2	1	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	69.92	55.58	1.60	100	0
3	1	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	63.25	55.58	1.60	100	0
4	1	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0
	2	(untitled)	1	1	E	50	11000	5	11	817	61.92	55.58	1.60	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	622.21	37.81	16.45	13.71	3.36	242.44	19.81	0.00	262.25
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	6.20	7.36	0.84	6.18	0.00	87.70	0.00	0.00	87.70
TOTAL	628.41	45.17	13.91	19.89	3.36	330.14	19.81	0.00	349.94

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 15

Version: 15.5.2.7994

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 4 - AM.t16
Path: \\wmfilesvr\Moylan\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 4
Report generation date: 24/03/2022 17:41:58

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

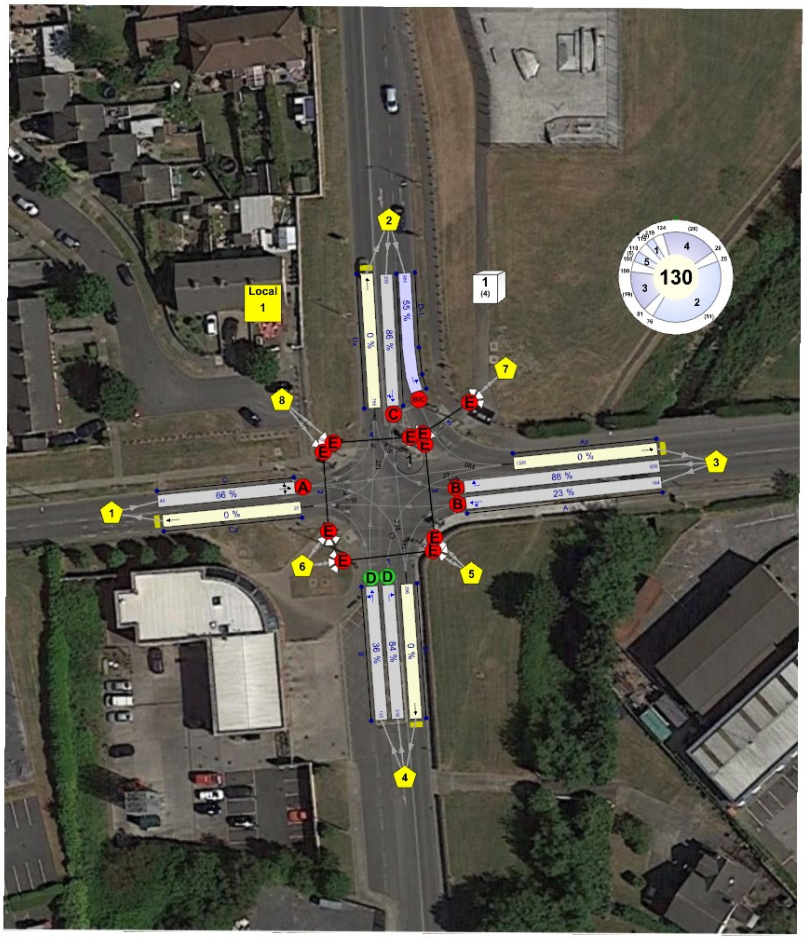
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



(untitled)
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2019 SURVEYED FLOWS
D1 - 2019 SURVEYED FLOWS, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:41:21	24/03/2022 17:41:22	08:00	130	383.43	26.08	66.81	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2019 SURVEYED FLOWS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2019 SURVEYED FLOWS,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	134	134
	2	481	481
Ax	1	1003	1003
B	1	99	99
	2	258	258
Bx	1	304	304
C	1	38	38
Cx	1	21	21
D	1	175	175
Dx	1	580	580
D-1	1	723	723

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	5	22	11	0	0	0	0
	2	3	0	723	172	0	0	0	0
	3	13	481	0	121	0	0	0	0
	4	5	94	258	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	5
	2		1	3	C/1, Ax/1	Normal	22
	3		1	4	C/1, Bx/1	Normal	11
	9		3	4	A/1, Bx/1	Normal	121
	11		4	2	B/1, Dx/1	Normal	94
	13		4	1	B/1, Cx/1	Normal	5
	16		3	2	A/2, Dx/1	Normal	481
	20		4	3	B/2, Ax/1	Normal	258
	45		3	1	A/1, Cx/1	Normal	13
	49		2	4	D/1, Bx/1	Normal	172
	50		2	1	D/1, Cx/1	Normal	3
	51		2	3	D-1/1, Ax/1	Normal	723

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 21, 77, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	21	27	1	3
	3	✓	2	B	26	77	51	1	3
	4	✓	3	C	82	100	18	1	3
	5	✓	5	E	105	110	5	1	5

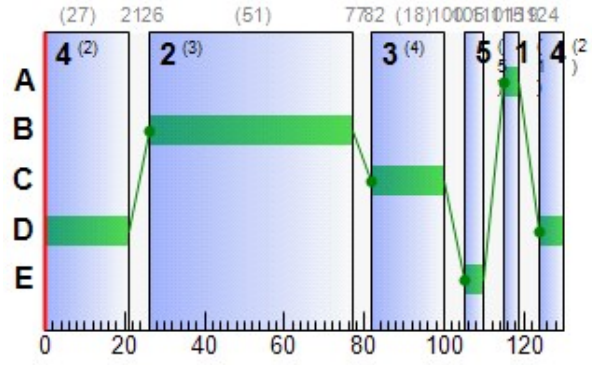
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	26	77	51
	C	1	✓	82	100	18
	D	1	✓	124	21	27
	E	1	✓	105	110	5

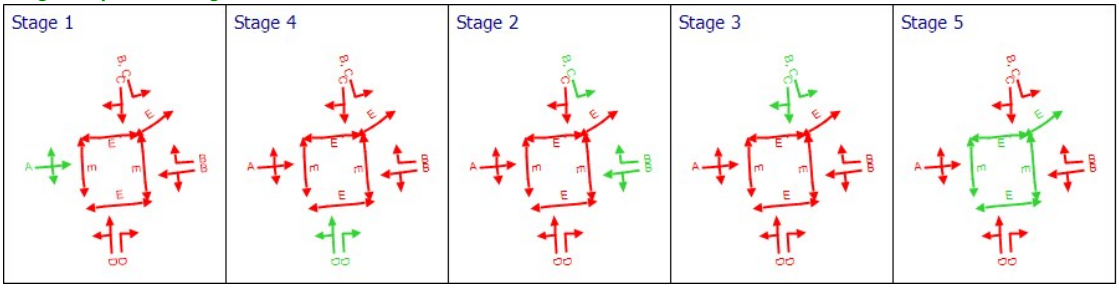
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	26	77	51
A	2	1	1	B	26	77	51
B	1	1	1	D	124	21	27
B	2	1	1	D	124	21	27
C	1	1	1	A	115	119	4
D	1	1	1	C	82	100	18
D-1	1	1	1	B	26	77	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	19	437	134	1800	51	25.86	3.15	60.34	13.67	1.08	14.75
		2	67	50	481	1800	51	36.91	14.83	284.20	70.03	5.07	75.10
	Ax	1	0	Unrestricted	1003	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	26	292	99	1800	27	43.94	2.99	42.93	17.16	1.03	18.18
		2	67	50	258	1800	27	55.76	9.18	131.92	56.75	3.13	59.88
	Bx	1	0	Unrestricted	304	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	55	82	38	1800	4	91.41	1.66	8.66	13.70	0.56	14.27
	Cx	1	0	Unrestricted	21	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	50	175	1800	18	65.70	6.57	53.99	45.35	2.26	47.61
	Dx	1	0	Unrestricted	580	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	40	149	723	3296	69	0.67	0.13	1.11	1.91	0.00	1.91

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	134	134	0		1800	720	19		437	0.00	0.0	51
		2	481	481	0		1800	720	67		50	0.00	0.0	51
	Ax	1	1003	1003	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	0.0	130
	B	1	99	99	0		1800	388	26		292	0.00	0.0	27
		2	258	258	0		1800	388	67		50	0.00	0.0	27
	Bx	1	304	304	0		Unrestricted	Unrestricted	0		Unrestricted	1.00	0.0	130
	C	1	38	38	0		1800	69	55		82	0.00	0.0	4
	Cx	1	21	21	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	0.0	130
	D	1	175	175	0		1800	263	67		50	0.00	0.0	18
	Dx	1	580	580	0		Unrestricted	Unrestricted	0		Unrestricted	0.89	0.0	130
	D-1	1	723	723	0		3296	1800	40		149	0.00	11.8	69

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	25.86	0.94	0.02	13.67	64.02	85.20	0.59	1.08
		2	3.60	36.91	4.27	0.66	70.03	83.99	385.74	18.24	5.07
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	43.94	1.16	0.04	17.16	82.62	80.58	1.21	1.03
		2	4.80	55.76	3.35	0.65	56.75	96.85	232.20	17.66	3.13
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	91.41	0.65	0.32	13.70	118.57	36.78	8.28	0.56
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	65.70	2.55	0.64	45.35	102.84	162.64	17.33	2.26
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.67	0.00	0.13	1.91	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.15	5.22	60.34	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	14.83	5.22	284.20	2.70	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	2.99	6.96	42.93	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	9.18	6.96	131.92	0.27	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	36.00	0.00	36.00	
	C	1	0.00	1.66	19.13	8.66	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	121.00	0.00	121.00	
	D	1	0.00	6.57	12.17	53.99	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	D-1	1	0.00	0.13	12.17	1.11	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.02	1.10	3.67	29.46
		2	14.43	5.41	2.67	40.51
	Ax	1	161.08	5.37	30.00	19.27
	B	1	3.96	1.34	2.95	48.74
		2	10.32	4.34	2.38	60.56
	Bx	1	42.94	1.43	30.00	16.95
	C	1	4.18	1.10	3.79	104.61
	Cx	1	2.93	0.10	30.00	16.77
	D	1	12.25	3.60	3.40	74.10
	Dx	1	79.87	2.66	30.00	16.52
	D-1	1	50.61	1.82	27.78	9.07

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.15	0.02	2.92	1.00	0.00	14.75
		2	0.00	0.00	✓	14.83	0.67	11.09	1.00	0.00	75.10
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	2.99	0.04	2.85	1.00	0.00	18.18
		2	0.00	0.00	✓	9.18	0.66	7.97	1.00	0.00	59.88
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.67	0.32	1.64	1.00	0.00	14.27
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.58	0.65	6.05	1.00	0.00	47.61
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.13	0.13	0.13	1.00	0.00	1.91

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	24/03/2022 17:41:21	24/03/2022 17:41:22	08:00	130	383.43	26.08	66.81	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	67	0	3816	767	14.52	218.57	13.12	231.69

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4416	4416	0		67		50	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.23	21.26	23.61	2.47	370.31	23.70	983.14	63.30	13.12

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	284.20	0.00	192.00	0.00	192.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	391.19	39.85	9.82

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	383.43

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	121.1	123.9	121.6	0.0	0.0	0.0	0.0
	2	90.9	0.0	28.3	91.0	0.0	0.0	0.0	0.0
	3	46.2	57.0	0.0	46.4	0.0	0.0	0.0	0.0
	4	65.5	65.3	79.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	5		121.14		5	121.14
2	1	3	22		123.88		22	123.88
3	1	4	11		121.56		11	121.56
9	3	4	121		46.41		121	46.41
11	4	2	94		65.26		94	65.26
13	4	1	5		65.51		5	65.51
16	3	2	481		57.04		481	57.04
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	258		79.84		258	79.84
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	13		46.23		13	46.23
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	172		91.05		172	91.05
50	2	1	3		90.87		3	90.87
51	2	3	723		28.34		723	28.34

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		134	1800	51	0.00	19	437	29.46	25.86	64.02	
	2	(untitled)	1	1	B		481 <	1800	51	0.00	67	50	40.51	36.91	83.99	
Ax	1	(untitled)					1003	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		99	1800	27	0.00	26	292	48.74	43.94	82.62	
	2	(untitled)	1	1	D		258 <	1800	27	0.00	67	50	60.56	55.76	96.85	
Bx	1	(untitled)					304	Unrestricted	130	36.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		38	1800	4	2.00	55	82	104.61	91.41	118.57	
Cx	1	(untitled)					21	Unrestricted	130	121.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		175	1800	18	0.00	67	50	74.10	65.70	102.84	
Dx	1	(untitled)					580	Unrestricted	130	33.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	723	3296	69	0.00	40	149	9.07	0.67	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	386.59	28.28	13.67	12.92	2.47	218.57	13.12	0.00	231.69
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	391.19	39.85	9.82	23.61	2.47	370.31	13.12	0.00	383.43

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO NOTHING
D2 - 2023 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:41:23	24/03/2022 17:41:24	08:00	130	408.53	27.76	71.25	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO NOTHING		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	143	143
	2	513	513
Ax	1	1069	1069
B	1	105	105
	2	275	275
Bx	1	324	324
C	1	40	40
Cx	1	22	22
D	1	186	186
Dx	1	618	618
D-1	1	771	771

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	5	23	12	0	0	0	0
	2	3	0	771	183	0	0	0	0
	3	14	513	0	129	0	0	0	0
	4	5	100	275	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	5
	2		1	3	C/1, Ax/1	Normal	23
	3		1	4	C/1, Bx/1	Normal	12
	9		3	4	A/1, Bx/1	Normal	129
	11		4	2	B/1, Dx/1	Normal	100
	13		4	1	B/1, Cx/1	Normal	5
	16		3	2	A/2, Dx/1	Normal	513
	20		4	3	B/2, Ax/1	Normal	275
	45		3	1	A/1, Cx/1	Normal	14
	49		2	4	D/1, Bx/1	Normal	183
	50		2	1	D/1, Cx/1	Normal	3
	51		2	3	D-1/1, Ax/1	Normal	771

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 21, 77, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	21	27	1	3
	3	✓	2	B	26	77	51	1	3
	4	✓	3	C	82	100	18	1	3
	5	✓	5	E	105	110	5	1	5

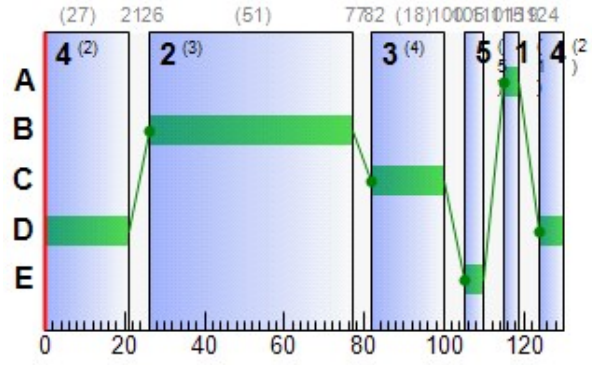
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	26	77	51
	C	1	✓	82	100	18
	D	1	✓	124	21	27
	E	1	✓	105	110	5

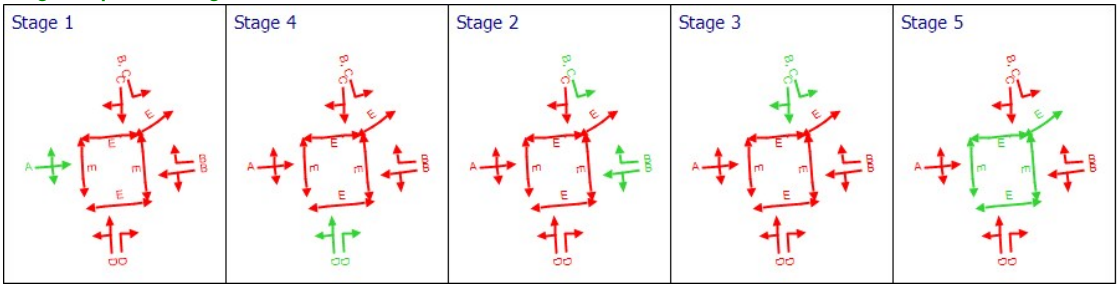
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	26	77	51
A	2	1	1	B	26	77	51
B	1	1	1	D	124	21	27
B	2	1	1	D	124	21	27
C	1	1	1	A	115	119	4
D	1	1	1	C	82	100	18
D-1	1	1	1	B	26	77	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	20	403	143	1800	51	26.05	3.36	64.42	14.69	1.15	15.84
		2	71	40	513	1800	51	38.83	16.40	314.37	78.57	5.58	84.15
	Ax	1	0	Unrestricted	1069	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	27	269	105	1800	27	44.23	3.20	46.00	18.32	1.10	19.42
		2	71	41	275	1800	27	58.26	10.01	143.88	63.20	3.43	66.63
	Bx	1	0	Unrestricted	324	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	58	73	40	1800	4	94.91	1.78	9.32	14.97	0.61	15.58
	Cx	1	0	Unrestricted	22	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	71	41	186	1800	18	68.74	7.18	58.94	50.43	2.46	52.89
	Dx	1	0	Unrestricted	618	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	43	133	771	3296	69	0.75	0.16	1.32	2.28	0.00	2.28

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	143	143	0		1800	720	20		403	0.00	0.0	51
		2	513	513	0		1800	720	71		40	0.00	0.0	51
	Ax	1	1069	1069	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	0.0	130
	B	1	105	105	0		1800	388	27		269	0.00	0.0	27
		2	275	275	0		1800	388	71		41	0.00	0.0	27
	Bx	1	324	324	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	0.0	130
	C	1	40	40	0		1800	69	58		73	0.00	0.0	4
	Cx	1	22	22	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D	1	186	186	0		1800	263	71		41	0.00	0.0	18
	Dx	1	618	618	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	0.0	130
	D-1	1	771	771	0		3296	1800	43		133	0.00	12.6	69

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.05	1.01	0.02	14.69	64.18	91.10	0.68	1.15
		2	3.60	38.83	4.66	0.87	78.57	86.68	420.88	23.80	5.58
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	44.23	1.24	0.05	18.32	83.43	86.22	1.39	1.10
		2	4.80	58.26	3.61	0.84	63.20	99.49	250.75	22.84	3.43
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	94.91	0.68	0.37	14.97	120.91	38.71	9.65	0.61
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	68.74	2.73	0.82	50.43	105.54	174.26	22.04	2.46
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.75	0.00	0.16	2.28	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.36	5.22	64.42	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	16.40	5.22	314.37	3.42	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.20	6.96	46.00	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.01	6.96	143.88	0.48	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	C	1	0.00	1.78	19.13	9.32	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	121.00	0.00	121.00	
	D	1	0.00	7.18	12.17	58.94	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	D-1	1	0.00	0.16	12.17	1.32	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.29	1.18	3.64	29.65
		2	15.39	6.05	2.55	42.43
	Ax	1	171.68	5.72	30.00	19.27
	B	1	4.20	1.43	2.94	49.03
		2	11.00	4.82	2.28	63.06
	Bx	1	45.77	1.53	30.00	16.95
	C	1	4.40	1.20	3.66	108.11
	Cx	1	3.07	0.10	30.00	16.77
	D	1	13.02	3.99	3.27	77.14
	Dx	1	85.10	2.84	30.00	16.52
	D-1	1	53.97	1.96	27.55	9.15

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.36	0.02	3.12	1.00	0.00	15.84
		2	0.00	0.00	✓	16.41	0.88	11.99	1.00	0.00	84.15
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.20	0.05	3.03	1.00	0.00	19.42
		2	0.00	0.00	✓	10.02	0.85	8.65	1.00	0.00	66.63
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.79	0.38	1.77	1.00	0.00	15.58
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	7.19	0.84	6.57	1.00	0.00	52.89
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.16	0.16	0.16	1.00	0.00	2.28

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	24/03/2022 17:41:23	24/03/2022 17:41:24	08:00	130	408.53	27.76	71.25	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	71	0	4066	767	15.12	242.46	14.32	256.79

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4666	4666	0		71		40	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.28	21.42	24.62	3.14	394.20	24.48	1061.93	80.40	14.32

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	314.37	0.00	188.00	0.00	188.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	416.49	42.38	9.83

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	408.53

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	124.6	127.4	125.1	0.0	0.0	0.0	0.0
	2	93.9	0.0	28.4	94.1	0.0	0.0	0.0	0.0
	3	46.4	59.0	0.0	46.6	0.0	0.0	0.0	0.0
	4	65.8	65.6	82.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	5		124.63		5	124.63
2	1	3	23		127.38		23	127.38
3	1	4	12		125.06		12	125.06
9	3	4	129		46.60		129	46.60
11	4	2	100		65.55		100	65.55
13	4	1	5		65.80		5	65.80
16	3	2	513		58.95		513	58.95
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	275		82.33		275	82.33
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	14		46.42		14	46.42
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	183		94.09		183	94.09
50	2	1	3		93.91		3	93.91
51	2	3	771		28.42		771	28.42

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		143	1800	51	0.00	20	403	29.65	26.05	64.18	
	2	(untitled)	1	1	B		513 <	1800	51	0.00	71	40	42.43	38.83	86.68	
Ax	1	(untitled)					1069	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		105	1800	27	0.00	27	269	49.03	44.23	83.43	
	2	(untitled)	1	1	D		275 <	1800	27	0.00	71	41	63.06	58.26	99.49	
Bx	1	(untitled)					324	Unrestricted	130	33.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		40	1800	4	2.00	58	73	108.11	94.91	120.91	
Cx	1	(untitled)					22	Unrestricted	130	121.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		186	1800	18	0.00	71	41	77.14	68.74	105.54	
Dx	1	(untitled)					618	Unrestricted	130	32.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	771	3296	69	0.00	43	133	9.15	0.75	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	411.89	30.80	13.37	13.94	3.14	242.46	14.32	0.00	256.79
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	416.49	42.38	9.83	24.62	3.14	394.20	14.32	0.00	408.53

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2023 DO SOMETHING
D3 - 2023 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:41:24	24/03/2022 17:41:26	08:00	130	419.99	28.53	75.05	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO SOMETHING		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	143	143
	2	530	530
Ax	1	1104	1104
B	1	109	109
	2	275	275
Bx	1	333	333
C	1	40	40
Cx	1	22	22
D	1	195	195
Dx	1	639	639
D-1	1	806	806

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	5	23	12	0	0	0	0
	2	3	0	806	192	0	0	0	0
	3	14	530	0	129	0	0	0	0
	4	5	104	275	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	5
	2		1	3	C/1, Ax/1	Normal	23
	3		1	4	C/1, Bx/1	Normal	12
	9		3	4	A/1, Bx/1	Normal	129
	11		4	2	B/1, Dx/1	Normal	104
	13		4	1	B/1, Cx/1	Normal	5
	16		3	2	A/2, Dx/1	Normal	530
	20		4	3	B/2, Ax/1	Normal	275
	45		3	1	A/1, Cx/1	Normal	14
	49		2	4	D/1, Bx/1	Normal	192
	50		2	1	D/1, Cx/1	Normal	3
	51		2	3	D-1/1, Ax/1	Normal	806

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 21, 76, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	21	27	1	3
	3	✓	2	B	26	76	50	1	3
	4	✓	3	C	81	100	19	1	3
	5	✓	5	E	105	110	5	1	5

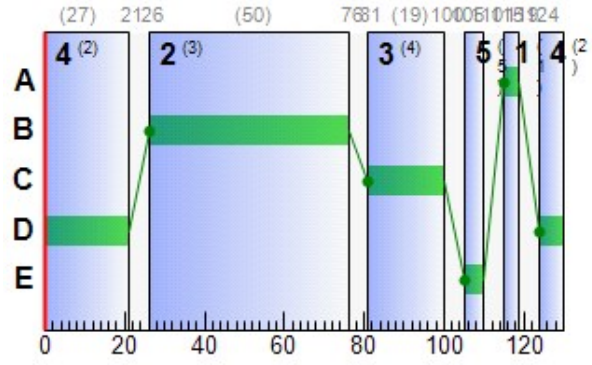
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	26	76	50
	C	1	✓	81	100	19
	D	1	✓	124	21	27
	E	1	✓	105	110	5

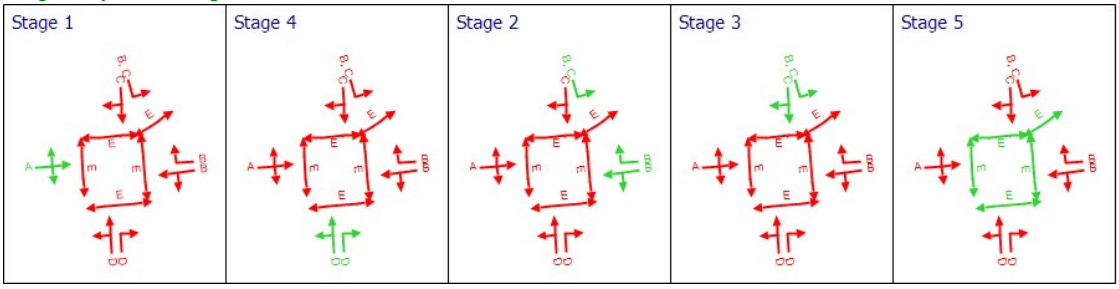
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	26	76	50
A	2	1	1	B	26	76	50
B	1	1	1	D	124	21	27
B	2	1	1	D	124	21	27
C	1	1	1	A	115	119	4
D	1	1	1	C	81	100	19
D-1	1	1	1	B	26	76	50

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	20	394	143	1800	50	26.73	3.40	65.21	15.08	1.16	16.24
		2	75	33	530	1800	50	41.53	17.45	334.41	86.83	5.97	92.80
	Ax	1	0	Unrestricted	1104	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	28	256	109	1800	27	44.42	3.32	47.79	19.10	1.14	20.24
		2	71	41	275	1800	27	58.26	10.01	143.88	63.20	3.43	66.63
	Bx	1	0	Unrestricted	333	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	58	73	40	1800	4	94.91	1.78	9.32	14.97	0.61	15.58
	Cx	1	0	Unrestricted	22	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	70	42	195	1800	19	67.12	7.47	61.37	51.63	2.56	54.19
	Dx	1	0	Unrestricted	639	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	45	123	806	3296	69	0.81	0.18	1.49	2.57	0.00	2.57

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	143	143	0		1800	706	20		394	0.00	0.0	50
		2	530	530	0		1800	706	75		33	0.00	0.0	50
	Ax	1	1104	1104	0		Unrestricted	Unrestricted	0		Unrestricted	0.36	0.0	130
	B	1	109	109	0		1800	388	28		256	0.00	0.0	27
		2	275	275	0		1800	388	71		41	0.00	0.0	27
	Bx	1	333	333	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	0.0	130
	C	1	40	40	0		1800	69	58		73	0.00	0.0	4
	Cx	1	22	22	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	0.0	130
	D	1	195	195	0		1800	277	70		42	0.00	0.0	19
	Dx	1	639	639	0		Unrestricted	Unrestricted	0		Unrestricted	0.89	0.0	130
	D-1	1	806	806	0		3296	1800	45		123	0.00	13.2	69

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.73	1.04	0.03	15.08	64.97	92.20	0.71	1.16
		2	3.60	41.53	5.01	1.11	86.83	89.89	446.26	30.18	5.97
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	44.42	1.29	0.05	19.10	83.56	89.56	1.51	1.14
		2	4.80	58.26	3.61	0.84	63.20	99.49	250.75	22.84	3.43
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	94.91	0.68	0.37	14.97	120.91	38.71	9.65	0.61
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	67.12	2.83	0.81	51.63	104.72	182.44	21.75	2.56
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.81	0.00	0.18	2.57	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.40	5.22	65.21	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	17.45	5.22	334.41	3.95	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.32	6.96	47.79	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.01	6.96	143.88	0.48	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	C	1	0.00	1.78	19.13	9.32	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	121.00	0.00	121.00	
	D	1	0.00	7.47	12.17	61.37	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	D-1	1	0.00	0.18	12.17	1.49	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.29	1.20	3.56	30.33
		2	15.90	6.64	2.39	45.13
	Ax	1	177.30	5.91	30.00	19.27
	B	1	4.36	1.49	2.93	49.22
		2	11.00	4.82	2.28	63.06
	Bx	1	47.04	1.57	30.00	16.95
	C	1	4.40	1.20	3.66	108.11
	Cx	1	3.07	0.10	30.00	16.77
	D	1	13.65	4.09	3.34	75.52
	Dx	1	87.99	2.93	30.00	16.52
	D-1	1	56.42	2.06	27.36	9.21

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.40	0.03	3.16	1.00	0.00	16.24
		2	0.00	0.00	✓	17.46	1.12	12.75	1.00	0.00	92.80
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.32	0.05	3.14	1.00	0.00	20.24
		2	0.00	0.00	✓	10.02	0.85	8.65	1.00	0.00	66.63
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.79	0.38	1.77	1.00	0.00	15.58
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	7.49	0.82	6.78	1.00	0.00	54.19
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.18	0.18	0.18	1.00	0.00	2.57

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	24/03/2022 17:41:24	24/03/2022 17:41:26	08:00	130	419.99	28.53	75.05	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	75	0	4196	766	15.31	253.38	14.88	268.26

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4796	4796	0		75		33	816

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.31	21.41	25.14	3.39	405.12	24.74	1099.93	86.65	14.88

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	334.41	0.00	189.00	0.00	189.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	430.02	43.60	9.86

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	419.99

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	124.6	127.4	125.1	0.0	0.0	0.0	0.0
	2	92.3	0.0	28.5	92.5	0.0	0.0	0.0	0.0
	3	47.1	61.7	0.0	47.3	0.0	0.0	0.0	0.0
	4	66.0	65.7	82.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	5		124.63		5	124.63
2	1	3	23		127.38		23	127.38
3	1	4	12		125.06		12	125.06
9	3	4	129		47.28		129	47.28
11	4	2	104		65.74		104	65.74
13	4	1	5		65.99		5	65.99
16	3	2	530		61.66		530	61.66
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	275		82.33		275	82.33
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	14		47.10		14	47.10
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	192		92.47		192	92.47
50	2	1	3		92.29		3	92.29
51	2	3	806		28.48		806	28.48

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		143	1800	50	0.00	20	394	30.33	26.73	64.97	
	2	(untitled)	1	1	B		530 <	1800	50	0.00	75	33	45.13	41.53	89.89	
Ax	1	(untitled)					1104	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		109	1800	27	0.00	28	256	49.22	44.42	83.56	
	2	(untitled)	1	1	D		275 <	1800	27	0.00	71	41	63.06	58.26	99.49	
Bx	1	(untitled)					333	Unrestricted	130	33.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		40	1800	4	2.00	58	73	108.11	94.91	120.91	
Cx	1	(untitled)					22	Unrestricted	130	121.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		195	1800	19	0.00	70	42	75.52	67.12	104.72	
Dx	1	(untitled)					639	Unrestricted	130	33.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	806	3296	69	0.00	45	123	9.21	0.81	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	425.42	32.02	13.28	14.45	3.39	253.38	14.88	0.00	268.26
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	430.02	43.60	9.86	25.14	3.39	405.12	14.88	0.00	419.99

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO NOTHING
D4 - 2025 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:41:27	24/03/2022 17:41:28	08:00	130	424.30	28.82	73.61	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO NOTHING		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	147	147
	2	530	530
Ax	1	1104	1104
B	1	110	110
	2	284	284
Bx	1	334	334
C	1	42	42
Cx	1	23	23
D	1	192	192
Dx	1	640	640
D-1	1	796	796

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	24	12	0	0	0	0
	2	3	0	796	189	0	0	0	0
	3	14	530	0	133	0	0	0	0
	4	6	104	284	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	24
	3		1	4	C/1, Bx/1	Normal	12
	9		3	4	A/1, Bx/1	Normal	133
	11		4	2	B/1, Dx/1	Normal	104
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	530
	20		4	3	B/2, Ax/1	Normal	284
	45		3	1	A/1, Cx/1	Normal	14
	49		2	4	D/1, Bx/1	Normal	189
	50		2	1	D/1, Cx/1	Normal	3
	51		2	3	D-1/1, Ax/1	Normal	796

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 21, 77, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	21	27	1	3
	3	✓	2	B	26	77	51	1	3
	4	✓	3	C	82	100	18	1	3
	5	✓	5	E	105	110	5	1	5

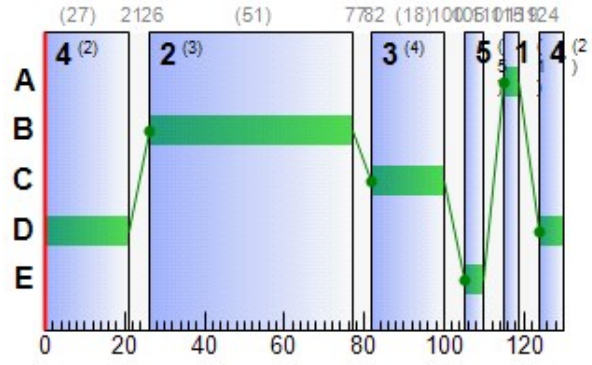
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	26	77	51
	C	1	✓	82	100	18
	D	1	✓	124	21	27
	E	1	✓	105	110	5

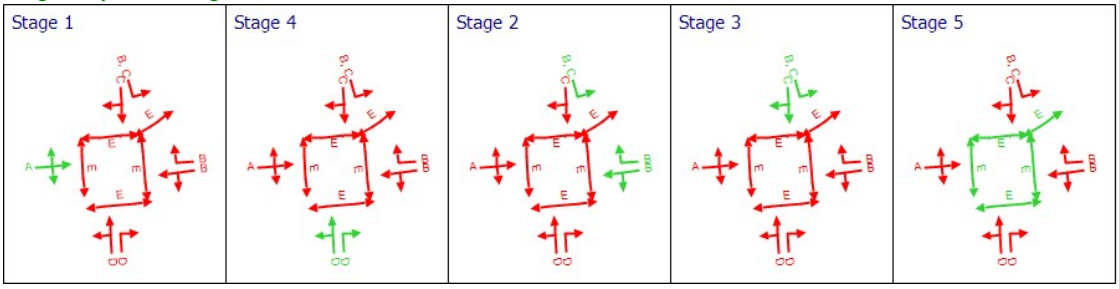
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	26	77	51
A	2	1	1	B	26	77	51
B	1	1	1	D	124	21	27
B	2	1	1	D	124	21	27
C	1	1	1	A	115	119	4
D	1	1	1	C	82	100	18
D-1	1	1	1	B	26	77	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	20	390	147	1800	51	26.12	3.46	66.24	15.15	1.18	16.33
		2	74	36	530	1800	51	40.02	17.20	329.72	83.66	5.88	89.53
	Ax	1	0	Unrestricted	1104	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	28	252	110	1800	27	44.47	3.36	48.24	19.29	1.15	20.45
		2	73	37	284	1800	27	59.83	10.52	151.18	67.02	3.59	70.61
	Bx	1	0	Unrestricted	334	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	61	65	42	1800	4	98.80	1.92	10.02	16.37	0.65	17.02
	Cx	1	0	Unrestricted	23	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	73	37	192	1800	18	70.71	7.55	62.06	53.55	2.59	56.13
	Dx	1	0	Unrestricted	640	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	44	126	796	3296	69	0.79	0.18	1.44	2.49	0.00	2.49

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	147	147	0		1800	720	20		390	0.00	0.0	51
		2	530	530	0		1800	720	74		36	0.00	0.0	51
	Ax	1	1104	1104	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	0.0	130
	B	1	110	110	0		1800	388	28		252	0.00	0.0	27
		2	284	284	0		1800	388	73		37	0.00	0.0	27
	Bx	1	334	334	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	0.0	130
	C	1	42	42	0		1800	69	61		65	0.00	0.0	4
	Cx	1	23	23	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D	1	192	192	0		1800	263	73		37	0.00	0.0	18
	Dx	1	640	640	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	0.0	130
	D-1	1	796	796	0		3296	1800	44		126	0.00	13.0	69

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.12	1.04	0.03	15.15	64.20	93.65	0.72	1.18
		2	3.60	40.02	4.88	1.01	83.66	88.46	441.28	27.55	5.88
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	44.47	1.30	0.06	19.29	83.57	90.38	1.55	1.15
		2	4.80	59.83	3.75	0.97	67.02	100.86	260.17	26.27	3.59
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	98.80	0.72	0.43	16.37	123.49	40.65	11.22	0.65
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	70.71	2.83	0.94	53.55	107.39	180.98	25.21	2.59
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.79	0.00	0.18	2.49	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.46	5.22	66.24	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	17.20	5.22	329.72	3.80	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.36	6.96	48.24	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.52	6.96	151.18	0.63	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	C	1	0.00	1.92	19.13	10.02	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	118.00	0.00	118.00	
	D	1	0.00	7.55	12.17	62.06	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	D-1	1	0.00	0.18	12.17	1.44	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.41	1.21	3.63	29.72
		2	15.90	6.42	2.48	43.62
	Ax	1	177.30	5.91	30.00	19.27
	B	1	4.40	1.51	2.92	49.27
		2	11.36	5.10	2.23	64.63
	Bx	1	47.18	1.57	30.00	16.95
	C	1	4.62	1.31	3.54	112.00
	Cx	1	3.21	0.11	30.00	16.77
	D	1	13.44	4.22	3.19	79.11
	Dx	1	88.13	2.94	30.00	16.52
	D-1	1	55.72	2.03	27.42	9.19

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.46	0.03	3.21	1.00	0.00	16.33
		2	0.00	0.00	✓	17.21	1.02	12.50	1.00	0.00	89.53
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.36	0.06	3.17	1.00	0.00	20.45
		2	0.00	0.00	✓	10.53	0.99	9.03	1.00	0.00	70.61
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.93	0.45	1.91	1.00	0.00	17.02
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	7.58	0.96	6.88	1.00	0.00	56.13
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.18	0.18	0.18	1.00	0.00	2.49

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	24/03/2022 17:41:27	24/03/2022 17:41:28	08:00	130	424.30	28.82	73.61	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	74	0	4202	767	15.54	257.52	15.04	272.56

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4802	4802	0		74		36	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.30	21.61	25.21	3.61	409.26	24.98	1107.12	92.52	15.04

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	329.72	0.00	184.00	0.00	184.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	430.27	43.90	9.80

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	424.30

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	128.5	131.3	129.0	0.0	0.0	0.0	0.0
	2	95.9	0.0	28.5	96.1	0.0	0.0	0.0	0.0
	3	46.5	60.1	0.0	46.7	0.0	0.0	0.0	0.0
	4	66.0	65.8	83.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		128.53		6	128.53
2	1	3	24		131.27		24	131.27
3	1	4	12		128.95		12	128.95
9	3	4	133		46.68		133	46.68
11	4	2	104		65.79		104	65.79
13	4	1	6		66.04		6	66.04
16	3	2	530		60.14		530	60.14
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	284		83.90		284	83.90
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	14		46.50		14	46.50
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	189		96.06		189	96.06
50	2	1	3		95.88		3	95.88
51	2	3	796		28.46		796	28.46

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		147	1800	51	0.00	20	390	29.72	26.12	64.20	
	2	(untitled)	1	1	B		530 <	1800	51	0.00	74	36	43.62	40.02	88.46	
Ax	1	(untitled)					1104	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		110	1800	27	0.00	28	252	49.27	44.47	83.57	
	2	(untitled)	1	1	D		284 <	1800	27	0.00	73	37	64.63	59.83	100.86	
Bx	1	(untitled)					334	Unrestricted	130	33.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		42	1800	4	2.00	61	65	112.00	98.80	123.49	
Cx	1	(untitled)					23	Unrestricted	130	118.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		192	1800	18	0.00	73	37	79.11	70.71	107.39	
Dx	1	(untitled)					640	Unrestricted	130	31.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	796	3296	69	0.00	44	126	9.19	0.79	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	425.67	32.32	13.17	14.52	3.61	257.52	15.04	0.00	272.56
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	430.27	43.90	9.80	25.21	3.61	409.26	15.04	0.00	424.30

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - 2025 DO SOMETHING
D5 - 2025 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:41:28	24/03/2022 17:41:30	08:00	130	441.45	29.98	76.81	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO SOMETHING		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	147	147
	2	553	553
Ax	1	1153	1153
B	1	115	115
	2	284	284
Bx	1	347	347
C	1	42	42
Cx	1	23	23
D	1	205	205
Dx	1	668	668
D-1	1	845	845

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	24	12	0	0	0	0
	2	3	0	845	202	0	0	0	0
	3	14	553	0	133	0	0	0	0
	4	6	109	284	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	24
	3		1	4	C/1, Bx/1	Normal	12
	9		3	4	A/1, Bx/1	Normal	133
	11		4	2	B/1, Dx/1	Normal	109
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	553
	20		4	3	B/2, Ax/1	Normal	284
	45		3	1	A/1, Cx/1	Normal	14
	49		2	4	D/1, Bx/1	Normal	202
	50		2	1	D/1, Cx/1	Normal	3
	51		2	3	D-1/1, Ax/1	Normal	845

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 76, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	76	51	1	3
	4	✓	3	C	81	100	19	1	3
	5	✓	5	E	105	110	5	1	5

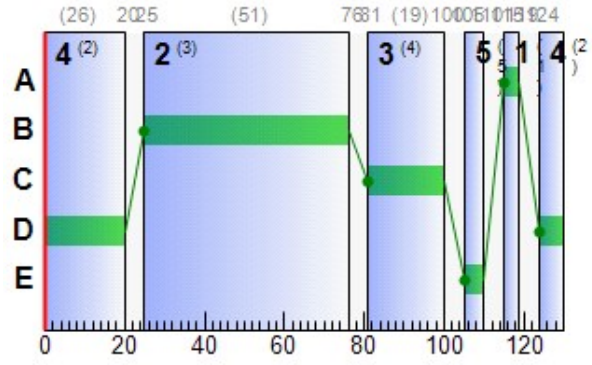
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	76	51
	C	1	✓	81	100	19
	D	1	✓	124	20	26
	E	1	✓	105	110	5

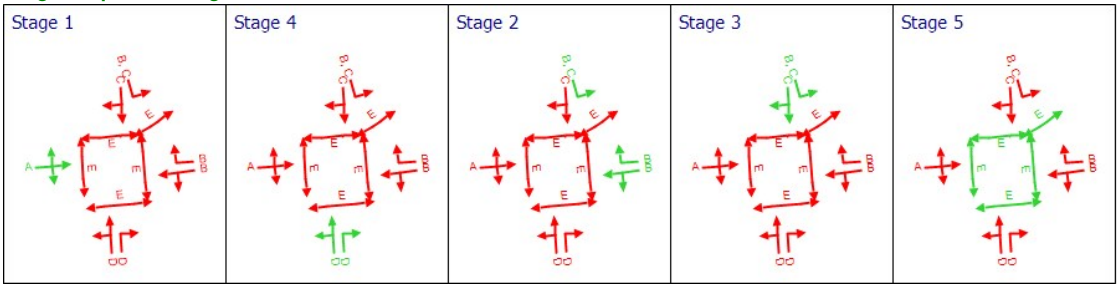
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	76	51
A	2	1	1	B	25	76	51
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	81	100	19
D-1	1	1	1	B	25	76	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	20	390	147	1800	51	26.12	3.46	66.24	15.15	1.18	16.33
		2	77	30	553	1800	51	41.86	18.45	353.55	91.32	6.30	97.62
	Ax	1	0	Unrestricted	1153	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	31	225	115	1800	26	45.72	3.58	51.49	20.74	1.22	21.96
		2	76	32	284	1800	26	63.05	10.78	154.91	70.63	3.69	74.32
	Bx	1	0	Unrestricted	347	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	61	65	42	1800	4	98.80	1.92	10.02	16.37	0.65	17.02
	Cx	1	0	Unrestricted	23	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	74	35	205	1800	19	70.19	8.07	66.27	56.76	2.76	59.52
	Dx	1	0	Unrestricted	668	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	47	113	845	3250	70	0.88	0.21	1.70	2.94	0.00	2.94

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	147	147	0		1800	720	20		390	0.00	0.0	51
		2	553	553	0		1800	720	77		30	0.00	0.0	51
	Ax	1	1153	1153	0		Unrestricted	Unrestricted	0		Unrestricted	0.35	0.0	130
	B	1	115	115	0		1800	374	31		225	0.00	0.0	26
		2	284	284	0		1800	374	76		32	0.00	0.0	26
	Bx	1	347	347	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	0.0	130
	C	1	42	42	0		1800	69	61		65	0.00	0.0	4
	Cx	1	23	23	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D	1	205	205	0		1800	277	74		35	0.00	0.0	19
	Dx	1	668	668	0		Unrestricted	Unrestricted	0		Unrestricted	0.87	0.0	130
	D-1	1	845	845	0		3250	1800	47		113	0.00	13.6	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.12	1.04	0.03	15.15	64.20	93.65	0.72	1.18
		2	3.60	41.86	5.19	1.24	91.32	90.91	468.87	33.86	6.30
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	45.72	1.39	0.07	20.74	84.75	95.59	1.88	1.22
		2	4.80	63.05	3.82	1.15	70.63	103.57	263.11	31.01	3.69
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	98.80	0.72	0.43	16.37	123.49	40.65	11.22	0.65
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	70.19	2.99	1.01	56.76	107.28	192.98	26.94	2.76
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.88	0.00	0.21	2.94	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.46	5.22	66.24	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	18.45	5.22	353.55	4.43	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.58	6.96	51.49	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.78	6.96	154.91	0.73	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	C	1	0.00	1.92	19.13	10.02	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	119.00	0.00	119.00	
	D	1	0.00	8.07	12.17	66.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	D-1	1	0.00	0.21	12.17	1.70	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.41	1.21	3.63	29.72
		2	16.59	6.98	2.38	45.46
	Ax	1	185.17	6.17	30.00	19.27
	B	1	4.60	1.61	2.85	50.52
		2	11.36	5.35	2.12	67.85
	Bx	1	49.02	1.63	30.00	16.95
	C	1	4.62	1.31	3.54	112.00
	Cx	1	3.21	0.11	30.00	16.77
	D	1	14.35	4.48	3.21	78.59
	Dx	1	91.98	3.07	30.00	16.52
	D-1	1	59.15	2.18	27.14	9.28

Traffic Stream Results: Advanced

Time		Traffic	Degree of saturation	Ped gap accepting	Warmed	Mean Max	Max End of	Max End of	PCU	Cost of traffic	Performance
			hr)	hr)						per hr)	
08:00-09:00	A	1	0.00	0.00	✓	3.46	0.03	3.21	1.00	0.00	16.33
		2	0.00	0.00	✓	18.46	1.26	13.24	1.00	0.00	97.62
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.58	0.07	3.36	1.00	0.00	21.96
		2	0.00	0.00	✓	10.80	1.18	9.30	1.00	0.00	74.32
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.93	0.45	1.91	1.00	0.00	17.02
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	8.09	1.03	7.29	1.00	0.00	59.52
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.21	0.21	0.21	1.00	0.00	2.94

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	24/03/2022 17:41:28	24/03/2022 17:41:30	08:00	130	441.45	29.98	76.81	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	77	0	4382	767	15.85	273.91	15.80	289.71

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4982	4982	0		77		30	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.35	21.66	25.84	4.14	425.65	25.30	1154.84	105.63	15.80

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	353.55	0.00	184.00	0.00	184.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	449.06	45.68	9.83

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	441.45

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	128.5	131.3	129.0	0.0	0.0	0.0	0.0
	2	95.4	0.0	28.6	95.5	0.0	0.0	0.0	0.0
	3	46.5	62.0	0.0	46.7	0.0	0.0	0.0	0.0
	4	67.3	67.0	87.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		128.53		6	128.53
2	1	3	24		131.27		24	131.27
3	1	4	12		128.95		12	128.95
9	3	4	133		46.68		133	46.68
11	4	2	109		67.05		109	67.05
13	4	1	6		67.29		6	67.29
16	3	2	553		61.99		553	61.99
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	284		87.12		284	87.12
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	14		46.50		14	46.50
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	202		95.55		202	95.55
50	2	1	3		95.36		3	95.36
51	2	3	845		28.56		845	28.56

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		147	1800	51	0.00	20	390	29.72	26.12	64.20	
	2	(untitled)	1	1	B		553 <	1800	51	0.00	77	30	45.46	41.86	90.91	
Ax	1	(untitled)					1153	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		115	1800	26	0.00	31	225	50.52	45.72	84.75	
	2	(untitled)	1	1	D		284 <	1800	26	0.00	76	32	67.85	63.05	103.57	
Bx	1	(untitled)					347	Unrestricted	130	32.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		42	1800	4	2.00	61	65	112.00	98.80	123.49	
Cx	1	(untitled)					23	Unrestricted	130	119.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		205	1800	19	0.00	74	35	78.59	70.19	107.28	
Dx	1	(untitled)					668	Unrestricted	130	31.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	845	3250	70	0.00	47	113	9.28	0.88	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	444.46	34.10	13.03	15.15	4.14	273.91	15.80	0.00	289.71
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	449.06	45.68	9.83	25.84	4.14	425.65	15.80	0.00	441.45

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - 2027 DO NOTHING
D6 - 2027 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	24/03/2022 17:41:30	24/03/2022 17:41:32	08:00	130	434.73	29.52	75.00	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO NOTHING		D6	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	151	151
	2	540	540
Ax	1	1127	1127
B	1	112	112
	2	290	290
Bx	1	341	341
C	1	43	43
Cx	1	24	24
D	1	196	196
Dx	1	652	652
D-1	1	812	812

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	25	12	0	0	0	0
	2	3	0	812	193	0	0	0	0
	3	15	540	0	136	0	0	0	0
	4	6	106	290	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	25
	3		1	4	C/1, Bx/1	Normal	12
	9		3	4	A/1, Bx/1	Normal	136
	11		4	2	B/1, Dx/1	Normal	106
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	540
	20		4	3	B/2, Ax/1	Normal	290
	45		3	1	A/1, Cx/1	Normal	15
	49		2	4	D/1, Bx/1	Normal	193
	50		2	1	D/1, Cx/1	Normal	3
	51		2	3	D-1/1, Ax/1	Normal	812

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 21, 77, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	21	27	1	3
	3	✓	2	B	26	77	51	1	3
	4	✓	3	C	82	100	18	1	3
	5	✓	5	E	105	110	5	1	5

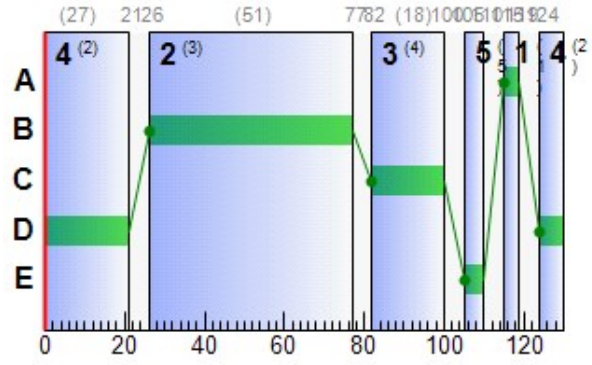
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	26	77	51
	C	1	✓	82	100	18
	D	1	✓	124	21	27
	E	1	✓	105	110	5

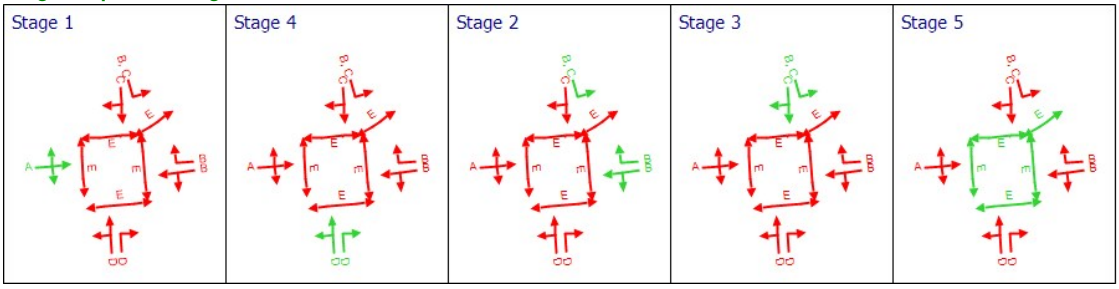
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	26	77	51
A	2	1	1	B	26	77	51
B	1	1	1	D	124	21	27
B	2	1	1	D	124	21	27
C	1	1	1	A	115	119	4
D	1	1	1	C	82	100	18
D-1	1	1	1	B	26	77	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	21	377	151	1800	51	26.21	3.59	68.87	15.61	1.23	16.84
		2	75	33	540	1800	51	40.78	17.75	340.25	86.86	6.06	92.92
	Ax	1	0	Unrestricted	1127	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	29	246	112	1800	27	44.56	3.42	49.14	19.69	1.17	20.86
		2	75	34	290	1800	27	60.99	10.82	155.50	69.77	3.71	73.48
	Bx	1	0	Unrestricted	341	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	62	61	43	1800	4	100.94	2.00	10.45	17.12	0.68	17.80
	Cx	1	0	Unrestricted	24	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	75	34	196	1800	18	72.17	7.78	63.95	55.80	2.67	58.47
	Dx	1	0	Unrestricted	652	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	45	122	812	3296	69	0.82	0.19	1.52	2.63	0.00	2.63

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	151	151	0		1800	720	21		377	0.00	0.0	51
		2	540	540	0		1800	720	75		33	0.00	0.0	51
	Ax	1	1127	1127	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	0.0	130
	B	1	112	112	0		1800	388	29		246	0.00	0.0	27
		2	290	290	0		1800	388	75		34	0.00	0.0	27
	Bx	1	341	341	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	0.0	130
	C	1	43	43	0		1800	69	62		61	0.00	0.0	4
	Cx	1	24	24	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D	1	196	196	0		1800	263	75		34	0.00	0.0	18
	Dx	1	652	652	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	0.0	130
	D-1	1	812	812	0		3296	1800	45		122	0.00	13.3	69

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.21	1.07	0.03	15.61	64.71	96.94	0.77	1.23
		2	3.60	40.78	5.01	1.10	86.86	89.53	453.37	30.10	6.06
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	44.56	1.33	0.06	19.69	83.61	92.03	1.62	1.17
		2	4.80	60.99	3.84	1.07	69.77	101.99	266.87	28.90	3.71
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	100.94	0.74	0.47	17.12	125.46	41.87	12.08	0.68
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	72.17	2.90	1.03	55.80	108.49	185.03	27.61	2.67
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.82	0.00	0.19	2.63	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.59	5.22	68.87	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	17.75	5.22	340.25	4.08	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.42	6.96	49.14	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.82	6.96	155.50	0.73	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	C	1	0.00	2.00	19.13	10.45	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	118.00	0.00	118.00	
	D	1	0.00	7.78	12.17	63.95	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	D-1	1	0.00	0.19	12.17	1.52	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.53	1.25	3.62	29.81
		2	16.20	6.66	2.43	44.38
	Ax	1	180.99	6.03	30.00	19.27
	B	1	4.48	1.54	2.92	49.36
		2	11.60	5.30	2.19	65.79
	Bx	1	48.17	1.61	30.00	16.95
	C	1	4.73	1.36	3.47	114.14
	Cx	1	3.35	0.11	30.00	16.77
	D	1	13.72	4.39	3.13	80.57
	Dx	1	89.78	2.99	30.00	16.52
	D-1	1	56.84	2.08	27.33	9.22

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.59	0.03	3.30	1.00	0.00	16.84
		2	0.00	0.00	✓	17.76	1.11	12.81	1.00	0.00	92.92
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.42	0.06	3.23	1.00	0.00	20.86
		2	0.00	0.00	✓	10.84	1.09	9.31	1.00	0.00	73.48
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.02	0.49	1.98	1.00	0.00	17.80
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	7.81	1.06	7.10	1.00	0.00	58.47
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.19	0.19	0.19	1.00	0.00	2.63

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	24/03/2022 17:41:30	24/03/2022 17:41:32	08:00	130	434.73	29.52	75.00	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	75	0	4288	767	15.81	267.48	15.51	282.99

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	4888	4888	0		75		33	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.32	21.74	25.57	3.95	419.22	25.31	1136.10	101.07	15.51

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	340.25	0.00	183.00	0.00	183.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	439.00	44.89	9.78

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	434.73

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	130.7	133.4	131.1	0.0	0.0	0.0	0.0
	2	97.3	0.0	28.5	97.5	0.0	0.0	0.0	0.0
	3	46.6	60.9	0.0	46.8	0.0	0.0	0.0	0.0
	4	66.1	65.9	85.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		130.67		6	130.67
2	1	3	25		133.41		25	133.41
3	1	4	12		131.09		12	131.09
9	3	4	136		46.76		136	46.76
11	4	2	106		65.89		106	65.89
13	4	1	6		66.13		6	66.13
16	3	2	540		60.90		540	60.90
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	290		85.07		290	85.07
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	15		46.58		15	46.58
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	193		97.53		193	97.53
50	2	1	3		97.35		3	97.35
51	2	3	812		28.49		812	28.49

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		151	1800	51	0.00	21	377	29.81	26.21	64.71
	2	(untitled)	1	1	B		540 <	1800	51	0.00	75	33	44.38	40.78	89.53
Ax	1	(untitled)					1127	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		112	1800	27	0.00	29	246	49.36	44.56	83.61
	2	(untitled)	1	1	D		290 <	1800	27	0.00	75	34	65.79	60.99	101.99
Bx	1	(untitled)					341	Unrestricted	130	33.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		43	1800	4	1.00	62	61	114.14	100.94	125.46
Cx	1	(untitled)					24	Unrestricted	130	118.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		196	1800	18	0.00	75	34	80.57	72.17	108.49
Dx	1	(untitled)					652	Unrestricted	130	31.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	812	3296	69	0.00	45	122	9.22	0.82	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	434.40	33.32	13.04	14.89	3.95	267.48	15.51	0.00	282.99
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	439.00	44.89	9.78	25.57	3.95	419.22	15.51	0.00	434.73

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - 2027 DO SOMETHING
D7 - 2027 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	24/03/2022 17:41:32	24/03/2022 17:41:33	08:00	130	474.20	32.18	81.67	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO SOMETHING		D7	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	151	151
	2	588	588
Ax	1	1228	1228
B	1	124	124
	2	290	290
Bx	1	366	366
C	1	43	43
Cx	1	24	24
D	1	221	221
Dx	1	712	712
D-1	1	913	913

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	25	12	0	0	0	0
	2	3	0	913	218	0	0	0	0
	3	15	588	0	136	0	0	0	0
	4	6	118	290	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	25
	3		1	4	C/1, Bx/1	Normal	12
	9		3	4	A/1, Bx/1	Normal	136
	11		4	2	B/1, Dx/1	Normal	118
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	588
	20		4	3	B/2, Ax/1	Normal	290
	45		3	1	A/1, Cx/1	Normal	15
	49		2	4	D/1, Bx/1	Normal	218
	50		2	1	D/1, Cx/1	Normal	3
	51		2	3	D-1/1, Ax/1	Normal	913

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 76, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	76	51	1	3
	4	✓	3	C	81	100	19	1	3
	5	✓	5	E	105	110	5	1	5

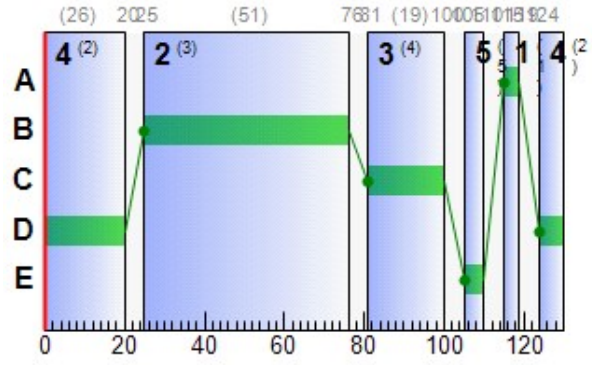
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	76	51
	C	1	✓	81	100	19
	D	1	✓	124	20	26
	E	1	✓	105	110	5

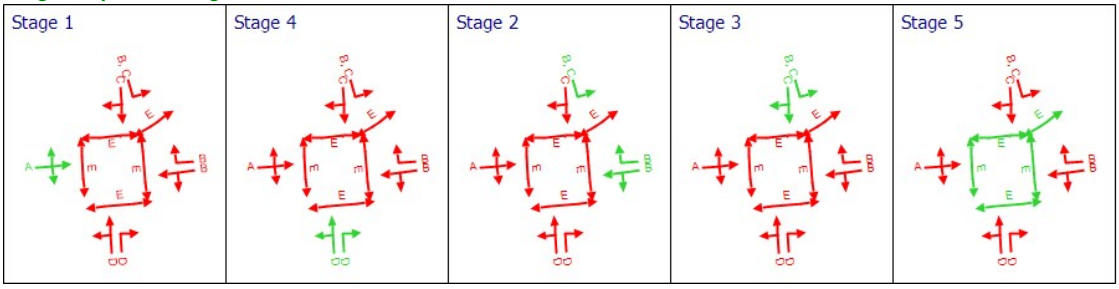
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	76	51
A	2	1	1	B	25	76	51
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	81	100	19
D-1	1	1	1	B	25	76	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	21	377	151	1800	51	26.21	3.59	68.87	15.61	1.23	16.84
		2	82	22	588	1800	51	45.47	20.53	393.57	105.47	7.02	112.49
	Ax	1	0	Unrestricted	1228	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	33	201	124	1800	26	46.22	3.87	55.64	22.61	1.33	23.93
		2	78	29	290	1800	26	64.52	11.11	159.66	73.80	3.81	77.61
	Bx	1	0	Unrestricted	366	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	62	61	43	1800	4	100.94	2.00	10.45	17.12	0.68	17.80
	Cx	1	0	Unrestricted	24	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	80	25	221	1800	19	76.83	9.13	75.02	66.98	3.12	70.09
	Dx	1	0	Unrestricted	712	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	51	97	913	3250	70	1.03	0.26	2.14	3.70	0.00	3.70

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	151	151	0		1800	720	21		377	0.00	0.0	51
		2	588	588	0		1800	720	82		22	0.00	0.0	51
	Ax	1	1228	1228	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	0.0	130
	B	1	124	124	0		1800	374	33		201	0.00	0.0	26
		2	290	290	0		1800	374	78		29	0.00	0.0	26
	Bx	1	366	366	0		Unrestricted	Unrestricted	0		Unrestricted	0.99	0.0	130
	C	1	43	43	0		1800	69	62		61	0.00	0.0	4
	Cx	1	24	24	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D	1	221	221	0		1800	277	80		25	0.00	0.0	19
	Dx	1	712	712	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	0.0	130
	D-1	1	913	913	0		3250	1800	51		97	0.00	14.7	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.21	1.07	0.03	15.61	64.71	96.94	0.77	1.23
		2	3.60	45.47	5.68	1.75	105.47	95.23	512.47	47.50	7.02
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	46.22	1.51	0.08	22.61	85.53	103.79	2.26	1.33
		2	4.80	64.52	3.92	1.28	73.80	104.69	269.26	34.36	3.81
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	100.94	0.74	0.47	17.12	125.46	41.87	12.08	0.68
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	76.83	3.26	1.46	66.98	112.56	210.14	38.62	3.12
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	1.03	0.00	0.26	3.70	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.59	5.22	68.87	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	20.53	5.22	393.57	5.58	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.87	6.96	55.64	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	11.11	6.96	159.66	0.84	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	C	1	0.00	2.00	19.13	10.45	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	118.00	0.00	118.00	
	D	1	0.00	9.13	12.17	75.02	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	D-1	1	0.00	0.26	12.17	2.14	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.53	1.25	3.62	29.81
		2	17.64	8.02	2.20	49.07
	Ax	1	197.21	6.57	30.00	19.27
	B	1	4.96	1.76	2.82	51.02
		2	11.60	5.58	2.08	69.32
	Bx	1	51.70	1.72	30.00	16.95
	C	1	4.73	1.36	3.47	114.14
	Cx	1	3.35	0.11	30.00	16.77
	D	1	15.47	5.23	2.96	85.23
	Dx	1	98.04	3.27	30.00	16.52
	D-1	1	63.91	2.39	26.73	9.43

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.59	0.03	3.30	1.00	0.00	16.84
		2	0.00	0.00	✓	20.57	1.78	14.52	1.00	0.00	112.49
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.87	0.08	3.63	1.00	0.00	23.93
		2	0.00	0.00	✓	11.14	1.31	9.61	1.00	0.00	77.61
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.02	0.49	1.98	1.00	0.00	17.80
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	9.19	1.51	8.27	1.00	0.00	70.09
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.26	0.26	0.26	1.00	0.00	3.70

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	24/03/2022 17:41:32	24/03/2022 17:41:33	08:00	130	474.20	32.18	81.67	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	82	0	4660	767	16.61	305.28	17.18	322.46

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5260	5260	0		82		22	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.40	22.03	26.86	5.33	457.02	26.05	1234.46	135.59	17.18

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	393.57	0.00	180.00	0.00	180.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	477.75	48.85	9.78

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	474.20

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	130.7	133.4	131.1	0.0	0.0	0.0	0.0
	2	102.0	0.0	28.7	102.2	0.0	0.0	0.0	0.0
	3	46.6	65.6	0.0	46.8	0.0	0.0	0.0	0.0
	4	67.8	67.5	88.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		130.67		6	130.67
2	1	3	25		133.41		25	133.41
3	1	4	12		131.09		12	131.09
9	3	4	136		46.76		136	46.76
11	4	2	118		67.54		118	67.54
13	4	1	6		67.79		6	67.79
16	3	2	588		65.60		588	65.60
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	290		88.59		290	88.59
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	15		46.58		15	46.58
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	218		102.18		218	102.18
50	2	1	3		102.00		3	102.00
51	2	3	913		28.70		913	28.70

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		151	1800	51	0.00	21	377	29.81	26.21	64.71
	2	(untitled)	1	1	B		588 <	1800	51	0.00	82	22	49.07	45.47	95.23
Ax	1	(untitled)					1228	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		124	1800	26	0.00	33	201	51.02	46.22	85.53
	2	(untitled)	1	1	D		290 <	1800	26	0.00	78	29	69.32	64.52	104.69
Bx	1	(untitled)					366	Unrestricted	130	31.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		43	1800	4	1.00	62	61	114.14	100.94	125.46
Cx	1	(untitled)					24	Unrestricted	130	118.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		221	1800	19	0.00	80	25	85.23	76.83	112.56
Dx	1	(untitled)					712	Unrestricted	130	30.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	913	3250	70	0.00	51	97	9.43	1.03	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	473.15	37.27	12.70	16.17	5.33	305.28	17.18	0.00	322.46
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	477.75	48.85	9.78	26.86	5.33	457.02	17.18	0.00	474.20

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A8 - 2032 DO NOTHING
D8 - 2032 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	24/03/2022 17:41:34	24/03/2022 17:41:35	08:00	130	464.58	31.53	80.44	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO NOTHING		D8	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	158	158
	2	568	568
Ax	1	1185	1185
B	1	117	117
	2	305	305
Bx	1	359	359
C	1	45	45
Cx	1	25	25
D	1	207	207
Dx	1	685	685
D-1	1	854	854

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	26	13	0	0	0	0
	2	4	0	854	203	0	0	0	0
	3	15	568	0	143	0	0	0	0
	4	6	111	305	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	26
	3		1	4	C/1, Bx/1	Normal	13
	9		3	4	A/1, Bx/1	Normal	143
	11		4	2	B/1, Dx/1	Normal	111
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	568
	20		4	3	B/2, Ax/1	Normal	305
	45		3	1	A/1, Cx/1	Normal	15
	49		2	4	D/1, Bx/1	Normal	203
	50		2	1	D/1, Cx/1	Normal	4
	51		2	3	D-1/1, Ax/1	Normal	854

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 21, 76, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	21	27	1	3
	3	✓	2	B	26	76	50	1	3
	4	✓	3	C	81	100	19	1	3
	5	✓	5	E	105	110	5	1	5

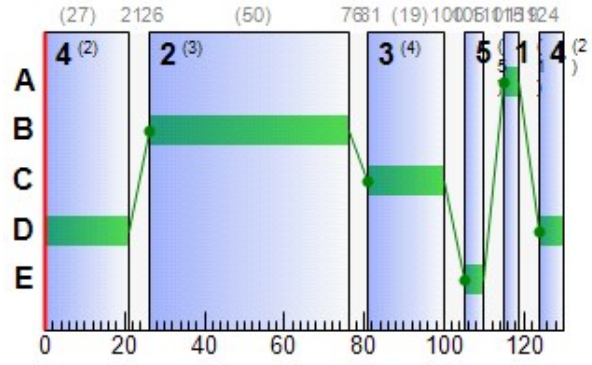
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	26	76	50
	C	1	✓	81	100	19
	D	1	✓	124	21	27
	E	1	✓	105	110	5

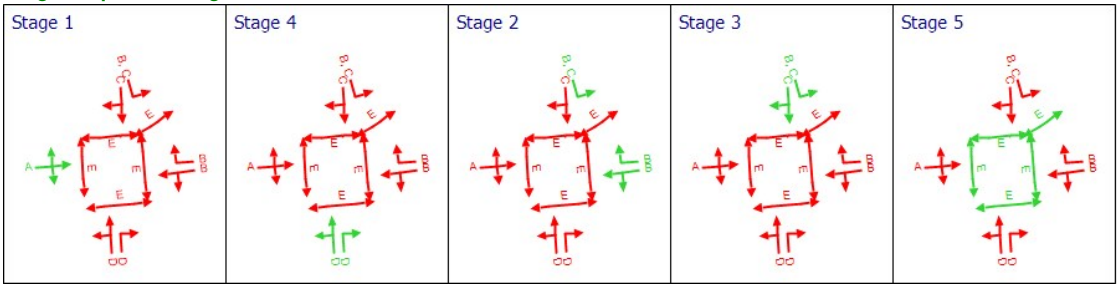
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	26	76	50
A	2	1	1	B	26	76	50
B	1	1	1	D	124	21	27
B	2	1	1	D	124	21	27
C	1	1	1	A	115	119	4
D	1	1	1	C	81	100	19
D-1	1	1	1	B	26	76	50

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	22	347	158	1800	50	27.06	3.81	72.96	16.86	1.30	18.17
		2	80	24	568	1800	50	45.20	19.74	378.40	101.27	6.74	108.01
	Ax	1	0	Unrestricted	1185	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	30	231	117	1800	27	44.80	3.61	51.86	20.68	1.23	21.91
		2	79	27	305	1800	27	64.46	11.71	168.40	77.54	4.01	81.56
	Bx	1	0	Unrestricted	359	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	65	54	45	1800	4	105.62	2.15	11.24	18.75	0.73	19.47
	Cx	1	0	Unrestricted	25	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	75	34	207	1800	19	70.89	8.18	67.21	57.89	2.80	60.68
	Dx	1	0	Unrestricted	685	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	47	111	854	3296	69	0.90	0.21	1.76	3.04	0.00	3.04

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	158	158	0		1800	706	22		347	0.00	0.0	50
		2	568	568	0		1800	706	80		24	0.00	0.0	50
	Ax	1	1185	1185	0		Unrestricted	Unrestricted	0		Unrestricted	0.36	0.0	130
	B	1	117	117	0		1800	388	30		231	0.00	0.0	27
		2	305	305	0		1800	388	79		27	0.00	0.0	27
	Bx	1	359	359	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	0.0	130
	C	1	45	45	0		1800	69	65		54	0.00	0.0	4
	Cx	1	25	25	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	0.0	130
	D	1	207	207	0		1800	277	75		34	0.00	0.0	19
	Dx	1	685	685	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	0.0	130
	D-1	1	854	854	0		3296	1800	47		111	0.00	14.0	69

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	27.06	1.16	0.03	16.86	65.78	103.04	0.89	1.30
		2	3.60	45.20	5.53	1.60	101.27	94.61	493.99	43.40	6.74
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	44.80	1.39	0.07	20.68	84.16	96.67	1.79	1.23
		2	4.80	64.46	4.08	1.38	77.54	104.98	283.17	37.01	4.01
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	105.62	0.77	0.55	18.75	128.66	43.90	14.00	0.73
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	70.89	3.02	1.05	57.89	107.87	195.15	28.14	2.80
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.90	0.00	0.21	3.04	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.81	5.22	72.96	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	19.74	5.22	378.40	5.20	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.61	6.96	51.86	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	11.71	6.96	168.40	1.05	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	C	1	0.00	2.15	19.13	11.24	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	118.00	0.00	118.00	
	D	1	0.00	8.18	12.17	67.21	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	D-1	1	0.00	0.21	12.17	1.76	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.74	1.35	3.52	30.66
		2	17.04	7.70	2.21	48.80
	Ax	1	190.31	6.34	30.00	19.27
	B	1	4.68	1.61	2.90	49.60
		2	12.20	5.87	2.08	69.26
	Bx	1	50.71	1.69	30.00	16.95
	C	1	4.95	1.49	3.33	118.82
	Cx	1	3.49	0.12	30.00	16.77
	D	1	14.49	4.56	3.18	79.29
	Dx	1	94.32	3.14	30.00	16.52
	D-1	1	59.78	2.21	27.09	9.30

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.81	0.03	3.50	1.00	0.00	18.17
		2	0.00	0.00	✓	19.77	1.62	14.09	1.00	0.00	108.01
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.61	0.07	3.38	1.00	0.00	21.91
		2	0.00	0.00	✓	11.75	1.41	10.05	1.00	0.00	81.56
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.17	0.57	2.14	1.00	0.00	19.47
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	8.21	1.08	7.40	1.00	0.00	60.68
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.21	0.21	0.21	1.00	0.00	3.04

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	24/03/2022 17:41:34	24/03/2022 17:41:35	08:00	130	464.58	31.53	80.44	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	80	0	4508	766	16.65	296.02	16.82	312.84

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5108	5108	0		80		24	816

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.36	22.22	26.64	4.89	447.76	26.26	1215.92	125.24	16.82

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	378.40	0.00	182.00	0.00	182.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	461.32	47.65	9.68

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	464.58

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	135.3	138.1	135.8	0.0	0.0	0.0	0.0
	2	96.1	0.0	28.6	96.2	0.0	0.0	0.0	0.0
	3	47.4	65.3	0.0	47.6	0.0	0.0	0.0	0.0
	4	66.4	66.1	88.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		135.35		6	135.35
2	1	3	26		138.10		26	138.10
3	1	4	13		135.77		13	135.77
9	3	4	143		47.61		143	47.61
11	4	2	111		66.13		111	66.13
13	4	1	6		66.37		6	66.37
16	3	2	568		65.32		568	65.32
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	305		88.53		305	88.53
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	15		47.43		15	47.43
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	203		96.25		203	96.25
50	2	1	4		96.07		4	96.07
51	2	3	854		28.57		854	28.57

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		158	1800	50	0.00	22	347	30.66	27.06	65.78
	2	(untitled)	1	1	B		568 <	1800	50	0.00	80	24	48.80	45.20	94.61
Ax	1	(untitled)					1185	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		117	1800	27	0.00	30	231	49.60	44.80	84.16
	2	(untitled)	1	1	D		305 <	1800	27	0.00	79	27	69.26	64.46	104.98
Bx	1	(untitled)					359	Unrestricted	130	32.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		45	1800	4	1.00	65	54	118.82	105.62	128.66
Cx	1	(untitled)					25	Unrestricted	130	118.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		207	1800	19	0.00	75	34	79.29	70.89	107.87
Dx	1	(untitled)					685	Unrestricted	130	31.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	854	3296	69	0.00	47	111	9.30	0.90	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	456.72	36.07	12.66	15.96	4.89	296.02	16.82	0.00	312.84
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	461.32	47.65	9.68	26.64	4.89	447.76	16.82	0.00	464.58

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A9 - 2032 DO SOMETHING
D9 - 2032 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	24/03/2022 17:41:35	24/03/2022 17:41:37	08:00	130	513.08	34.82	85.56	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO SOMETHING		D9	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	158	158
	2	616	616
Ax	1	1286	1286
B	1	129	129
	2	305	305
Bx	1	384	384
C	1	45	45
Cx	1	25	25
D	1	232	232
Dx	1	745	745
D-1	1	955	955

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	26	13	0	0	0	0
	2	4	0	955	228	0	0	0	0
	3	15	616	0	143	0	0	0	0
	4	6	123	305	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	26
	3		1	4	C/1, Bx/1	Normal	13
	9		3	4	A/1, Bx/1	Normal	143
	11		4	2	B/1, Dx/1	Normal	123
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	616
	20		4	3	B/2, Ax/1	Normal	305
	45		3	1	A/1, Cx/1	Normal	15
	49		2	4	D/1, Bx/1	Normal	228
	50		2	1	D/1, Cx/1	Normal	4
	51		2	3	D-1/1, Ax/1	Normal	955

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 76, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	76	51	1	3
	4	✓	3	C	81	100	19	1	3
	5	✓	5	E	105	110	5	1	5

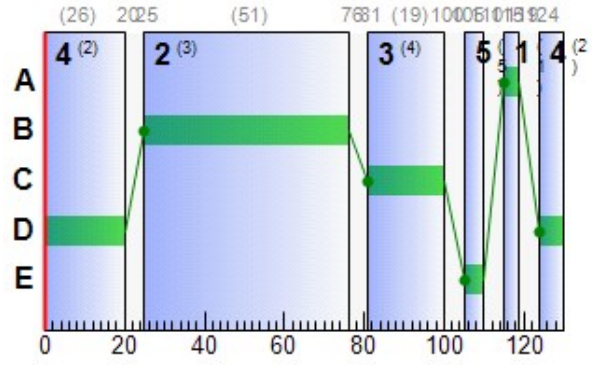
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	76	51
	C	1	✓	81	100	19
	D	1	✓	124	20	26
	E	1	✓	105	110	5

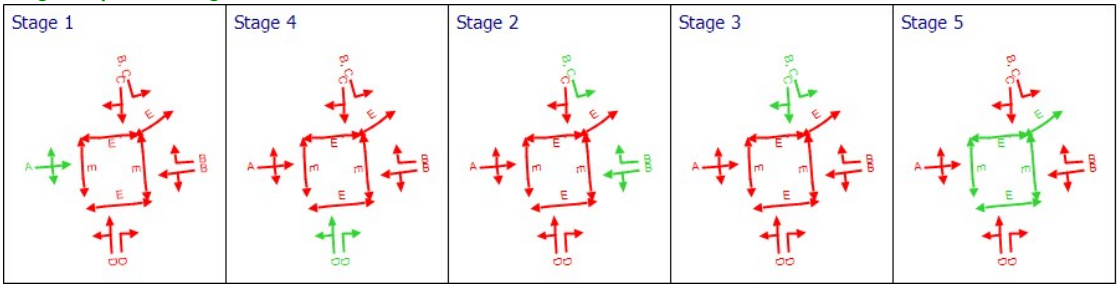
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	76	51
A	2	1	1	B	25	76	51
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	81	100	19
D-1	1	1	1	B	25	76	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	22	356	158	1800	51	26.36	3.76	72.09	16.43	1.29	17.72
		2	86	17	616	1800	51	49.52	22.58	432.71	120.31	7.70	128.02
	Ax	1	0	Unrestricted	1286	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	35	190	129	1800	26	46.48	4.03	57.96	23.65	1.39	25.04
		2	82	23	305	1800	26	69.02	12.11	174.02	83.03	4.15	87.18
	Bx	1	0	Unrestricted	384	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	65	54	45	1800	4	105.62	2.15	11.24	18.75	0.73	19.47
	Cx	1	0	Unrestricted	25	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	84	19	232	1800	19	83.33	10.05	82.53	76.25	3.42	79.67
	Dx	1	0	Unrestricted	745	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	53	88	955	3250	70	1.13	0.30	2.46	4.25	0.00	4.25

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	158	158	0		1800	720	22		356	0.00	0.0	51
		2	616	616	0		1800	720	86		17	0.00	0.0	51
	Ax	1	1286	1286	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	0.0	130
	B	1	129	129	0		1800	374	35		190	0.00	0.0	26
		2	305	305	0		1800	374	82		23	0.00	0.0	26
	Bx	1	384	384	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	0.0	130
	C	1	45	45	0		1800	69	65		54	0.00	0.0	4
	Cx	1	25	25	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	0.0	130
	D	1	232	232	0		1800	277	84		19	0.00	0.0	19
	Dx	1	745	745	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	0.0	130
	D-1	1	955	955	0		3250	1800	53		88	0.00	15.4	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.36	1.13	0.03	16.43	64.97	101.79	0.85	1.29
		2	3.60	49.52	6.09	2.39	120.31	99.75	550.15	64.31	7.70
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	46.48	1.58	0.09	23.65	85.64	107.98	2.50	1.39
		2	4.80	69.02	4.16	1.68	83.03	108.40	285.71	44.92	4.15
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	105.62	0.77	0.55	18.75	128.66	43.90	14.00	0.73
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	83.33	3.44	1.93	76.25	117.50	222.19	50.40	3.42
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	1.13	0.00	0.30	4.25	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.76	5.22	72.09	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	22.58	5.22	432.71	6.84	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.03	6.96	57.96	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	12.11	6.96	174.02	1.22	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	C	1	0.00	2.15	19.13	11.24	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	118.00	0.00	118.00	
	D	1	0.00	10.05	12.17	82.53	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	D-1	1	0.00	0.30	12.17	2.46	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.74	1.32	3.60	29.96
		2	18.48	9.09	2.03	53.12
	Ax	1	206.53	6.88	30.00	19.27
	B	1	5.16	1.84	2.81	51.28
		2	12.20	6.25	1.95	73.82
	Bx	1	54.24	1.81	30.00	16.95
	C	1	4.95	1.49	3.33	118.82
	Cx	1	3.49	0.12	30.00	16.77
	D	1	16.24	5.91	2.75	91.73
	Dx	1	102.59	3.42	30.00	16.52
	D-1	1	66.85	2.53	26.45	9.53

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.76	0.03	3.45	1.00	0.00	17.72
		2	0.00	0.00	✓	22.65	2.46	15.80	1.00	0.00	128.02
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.03	0.09	3.78	1.00	0.00	25.04
		2	0.00	0.00	✓	12.16	1.74	10.47	1.00	0.00	87.18
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.17	0.57	2.14	1.00	0.00	19.47
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	10.15	2.03	9.12	1.00	0.00	79.67
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.30	0.30	0.30	1.00	0.00	4.25

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	24/03/2022 17:41:35	24/03/2022 17:41:37	08:00	130	513.08	34.82	85.56	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	86	0	4880	767	17.80	342.68	18.67	361.34

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5480	5480	0		86		17	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.43	22.87	27.85	6.97	494.42	27.17	1311.73	176.99	18.67

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	432.71	0.00	178.00	0.00	178.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	500.07	52.22	9.58

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	513.08

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	135.3	138.1	135.8	0.0	0.0	0.0	0.0
	2	108.5	0.0	28.8	108.7	0.0	0.0	0.0	0.0
	3	46.7	69.6	0.0	46.9	0.0	0.0	0.0	0.0
	4	68.1	67.8	93.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		135.35		6	135.35
2	1	3	26		138.10		26	138.10
3	1	4	13		135.77		13	135.77
9	3	4	143		46.92		143	46.92
11	4	2	123		67.81		123	67.81
13	4	1	6		68.05		6	68.05
16	3	2	616		69.64		616	69.64
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	305		93.09		305	93.09
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	15		46.73		15	46.73
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	228		108.68		228	108.68
50	2	1	4		108.50		4	108.50
51	2	3	955		28.80		955	28.80

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		158	1800	51	0.00	22	356	29.96	26.36	64.97
	2	(untitled)	1	1	B		616 <	1800	51	0.00	86	17	53.12	49.52	99.75
Ax	1	(untitled)					1286	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		129	1800	26	0.00	35	190	51.28	46.48	85.64
	2	(untitled)	1	1	D		305 <	1800	26	0.00	82	23	73.82	69.02	108.40
Bx	1	(untitled)					384	Unrestricted	130	29.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		45	1800	4	1.00	65	54	118.82	105.62	128.66
Cx	1	(untitled)					25	Unrestricted	130	118.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		232	1800	19	0.00	84	19	91.73	83.33	117.50
Dx	1	(untitled)					745	Unrestricted	130	30.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	955	3250	70	0.00	53	88	9.53	1.13	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	495.47	40.65	12.19	17.17	6.97	342.68	18.67	0.00	361.34
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	500.07	52.22	9.58	27.85	6.97	494.42	18.67	0.00	513.08

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A10 - 2042 DO NOTHING
D10 - 2042 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	24/03/2022 17:41:37	24/03/2022 17:41:39	08:00	130	488.02	33.12	83.13	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO NOTHING		D10	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO NOTHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	164	164
	2	587	587
Ax	1	1224	1224
B	1	121	121
	2	315	315
Bx	1	371	371
C	1	46	46
Cx	1	26	26
D	1	214	214
Dx	1	708	708
D-1	1	882	882

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	27	13	0	0	0	0
	2	4	0	882	210	0	0	0	0
	3	16	587	0	148	0	0	0	0
	4	6	115	315	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	27
	3		1	4	C/1, Bx/1	Normal	13
	9		3	4	A/1, Bx/1	Normal	148
	11		4	2	B/1, Dx/1	Normal	115
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	587
	20		4	3	B/2, Ax/1	Normal	315
	45		3	1	A/1, Cx/1	Normal	16
	49		2	4	D/1, Bx/1	Normal	210
	50		2	1	D/1, Cx/1	Normal	4
	51		2	3	D-1/1, Ax/1	Normal	882

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 22, 77, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	22	28	1	3
	3	✓	2	B	27	77	50	1	3
	5	✓	5	E	105	110	5	1	5

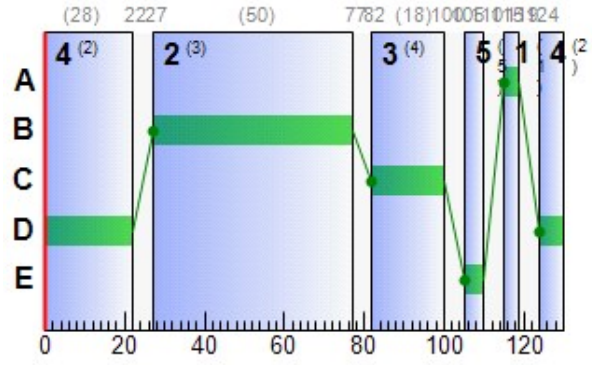
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	27	77	50
	C	1	✓	82	100	18
	D	1	✓	124	22	28
	E	1	✓	105	110	5

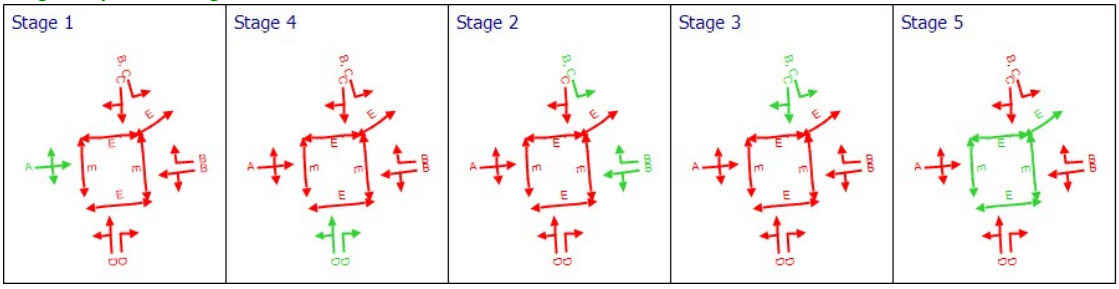
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	27	77	50
A	2	1	1	B	27	77	50
B	1	1	1	D	124	22	28
B	2	1	1	D	124	22	28
C	1	1	1	A	115	119	4
D	1	1	1	C	82	100	18
D-1	1	1	1	B	27	77	50

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	23	331	164	1800	50	27.18	3.95	75.76	17.58	1.35	18.94
		2	83	20	587	1800	50	47.62	21.03	403.14	110.25	7.16	117.41
	Ax	1	0	Unrestricted	1224	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	30	232	121	1800	28	44.00	3.69	53.11	21.00	1.27	22.27
		2	78	27	315	1800	28	63.11	12.04	173.01	78.41	4.12	82.53
	Bx	1	0	Unrestricted	371	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	66	51	46	1800	4	108.18	2.23	11.65	19.63	0.75	20.38
	Cx	1	0	Unrestricted	26	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	81	23	214	1800	18	80.94	9.04	74.30	68.32	3.09	71.41
	Dx	1	0	Unrestricted	708	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	49	104	882	3343	68	0.96	0.24	1.93	3.34	0.00	3.34

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	164	164	0		1800	706	23		331	0.00	0.0	50
		2	587	587	0		1800	706	83		20	0.00	0.0	50
	Ax	1	1224	1224	0		Unrestricted	Unrestricted	0		Unrestricted	0.36	0.0	130
	B	1	121	121	0		1800	402	30		232	0.00	0.0	28
		2	315	315	0		1800	402	78		27	0.00	0.0	28
	Bx	1	371	371	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	0.0	130
	C	1	46	46	0		1800	69	66		51	0.00	0.0	4
	Cx	1	26	26	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	0.0	130
	D	1	214	214	0		1800	263	81		23	0.00	0.0	18
	Dx	1	708	708	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	0.0	130
	D-1	1	882	882	0		3343	1800	49		104	0.00	14.7	68

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	27.18	1.20	0.04	17.58	65.84	107.00	0.97	1.35
		2	3.60	47.62	5.81	1.96	110.25	97.27	518.04	52.94	7.16
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	44.00	1.41	0.06	21.00	83.55	99.30	1.79	1.27
		2	4.80	63.11	4.16	1.36	78.41	104.31	291.99	36.57	4.12
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	108.18	0.79	0.59	19.63	130.29	44.87	15.06	0.75
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	80.94	3.20	1.61	68.32	115.07	203.80	42.45	3.09
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.96	0.00	0.24	3.34	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.95	5.22	75.76	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	21.03	5.22	403.14	5.96	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	3.69	6.96	53.11	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	12.04	6.96	173.01	1.15	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	C	1	0.00	2.23	19.13	11.65	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	117.00	0.00	117.00	
	D	1	0.00	9.04	12.17	74.30	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	D-1	1	0.00	0.24	12.17	1.93	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.92	1.40	3.51	30.78
		2	17.61	8.35	2.11	51.22
	Ax	1	196.57	6.55	30.00	19.27
	B	1	4.84	1.64	2.95	48.80
		2	12.60	5.94	2.12	67.91
	Bx	1	52.41	1.75	30.00	16.95
	C	1	5.06	1.55	3.26	121.38
	Cx	1	3.63	0.12	30.00	16.77
	D	1	14.98	5.31	2.82	89.34
	Dx	1	97.49	3.25	30.00	16.52
	D-1	1	61.74	2.29	26.93	9.36

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.95	0.04	3.63	1.00	0.00	18.94
		2	0.00	0.00	✓	21.08	2.00	14.88	1.00	0.00	117.41
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	3.69	0.06	3.46	1.00	0.00	22.27
		2	0.00	0.00	✓	12.07	1.39	10.23	1.00	0.00	82.53
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.26	0.62	2.22	1.00	0.00	20.38
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	9.12	1.69	8.29	1.00	0.00	71.41
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.24	0.24	0.24	1.00	0.00	3.34

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	24/03/2022 17:41:37	24/03/2022 17:41:39	08:00	130	488.02	33.12	83.13	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	83	0	4658	766	17.34	318.54	17.74	336.28

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5258	5258	0		83		20	816

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.38	22.68	27.26	5.86	470.28	26.91	1265.00	149.77	17.74

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	403.14	0.00	178.00	0.00	178.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	476.45	49.74	9.58

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	488.02

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	137.9	140.7	138.3	0.0	0.0	0.0	0.0
	2	106.1	0.0	28.6	106.3	0.0	0.0	0.0	0.0
	3	47.6	67.7	0.0	47.7	0.0	0.0	0.0	0.0
	4	65.6	65.3	87.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		137.91		6	137.91
2	1	3	27		140.66		27	140.66
3	1	4	13		138.34		13	138.34
9	3	4	148		47.73		148	47.73
11	4	2	115		65.33		115	65.33
13	4	1	6		65.57		6	65.57
16	3	2	587		67.74		587	67.74
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	315		87.18		315	87.18
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	16		47.55		16	47.55
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	210		106.29		210	106.29
50	2	1	4		106.11		4	106.11
51	2	3	882		28.63		882	28.63

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		164	1800	50	0.00	23	331	30.78	27.18	65.84
	2	(untitled)	1	1	B		587 <	1800	50	0.00	83	20	51.22	47.62	97.27
Ax	1	(untitled)					1224	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		121	1800	28	0.00	30	232	48.80	44.00	83.55
	2	(untitled)	1	1	D		315 <	1800	28	0.00	78	27	67.91	63.11	104.31
Bx	1	(untitled)					371	Unrestricted	130	31.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		46	1800	4	1.00	66	51	121.38	108.18	130.29
Cx	1	(untitled)					26	Unrestricted	130	117.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		214	1800	18	0.00	81	23	89.34	80.94	115.07
Dx	1	(untitled)					708	Unrestricted	130	29.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	882	3343	68	0.00	49	104	9.36	0.96	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	471.85	38.16	12.36	16.57	5.86	318.54	17.74	0.00	336.28
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	476.45	49.74	9.58	27.26	5.86	470.28	17.74	0.00	488.02

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A11 - 2042 DO SOMETHING
D11 - 2042 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
11	24/03/2022 17:41:40	24/03/2022 17:41:41	08:00	130	545.18	37.00	88.19	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO SOMETHING		D11	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO SOMETHING,	AM			08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	164	164
	2	635	635
Ax	1	1326	1326
B	1	133	133
	2	315	315
Bx	1	396	396
C	1	46	46
Cx	1	26	26
D	1	239	239
Dx	1	768	768
D-1	1	984	984

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	27	13	0	0	0	0
	2	4	0	984	235	0	0	0	0
	3	16	635	0	148	0	0	0	0
	4	6	127	315	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	27
	3		1	4	C/1, Bx/1	Normal	13
	9		3	4	A/1, Bx/1	Normal	148
	11		4	2	B/1, Dx/1	Normal	127
	13		4	1	B/1, Cx/1	Normal	6
	16		3	2	A/2, Dx/1	Normal	635
	20		4	3	B/2, Ax/1	Normal	315
	45		3	1	A/1, Cx/1	Normal	16
	49		2	4	D/1, Bx/1	Normal	235
	50		2	1	D/1, Cx/1	Normal	4
	51		2	3	D-1/1, Ax/1	Normal	984

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 76, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	76	51	1	3
	4	✓	3	C	81	100	19	1	3
	5	✓	5	E	105	110	5	1	5

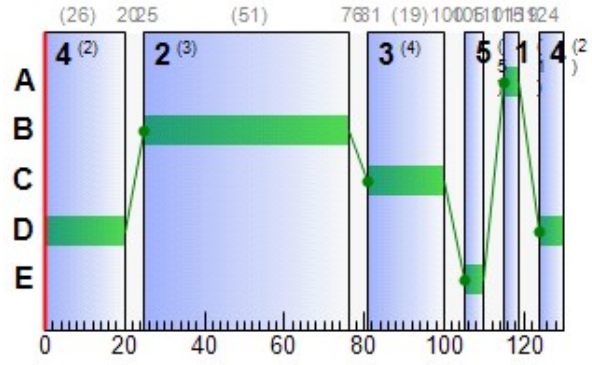
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	76	51
	C	1	✓	81	100	19
	D	1	✓	124	20	26
	E	1	✓	105	110	5

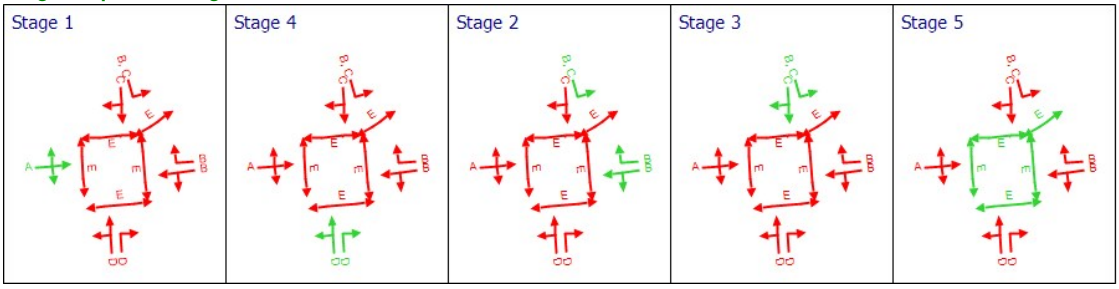
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	76	51
A	2	1	1	B	25	76	51
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	81	100	19
D-1	1	1	1	B	25	76	51

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	23	339	164	1800	51	26.49	3.91	74.86	17.13	1.34	18.47
		2	88	13	635	1800	51	53.26	24.18	463.53	133.41	8.24	141.65
	Ax	1	0	Unrestricted	1326	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36	181	133	1800	26	46.72	4.20	60.36	24.51	1.44	25.95
		2	84	19	315	1800	26	72.93	12.90	185.49	90.61	4.41	95.02
	Bx	1	0	Unrestricted	396	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	66	51	46	1800	4	108.18	2.23	11.65	19.63	0.75	20.38
	Cx	1	0	Unrestricted	26	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	86	16	239	1800	19	88.74	10.69	87.84	83.66	3.63	87.29
	Dx	1	0	Unrestricted	768	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	55	83	984	3250	70	1.20	0.33	2.70	4.67	0.00	4.67

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
08:00-09:00	A	1	164	164	0		1800	720	23		339	0.00	0.0	51
		2	635	635	0		1800	720	88		13	0.00	0.0	51
	Ax	1	1326	1326	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	0.0	130
	B	1	133	133	0		1800	374	36		181	0.00	0.0	26
		2	315	315	0		1800	374	84		19	0.00	0.0	26
	Bx	1	396	396	0		Unrestricted	Unrestricted	0		Unrestricted	0.97	0.0	130
	C	1	46	46	0		1800	69	66		51	0.00	0.0	4
	Cx	1	26	26	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	0.0	130
	D	1	239	239	0		1800	277	86		16	0.00	0.0	19
	Dx	1	768	768	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	0.0	130
	D-1	1	984	984	0		3250	1800	55		83	0.00	15.9	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	3.60	26.49	1.17	0.03	17.13	65.04	105.73	0.93	1.34
		2	3.60	53.26	6.38	3.02	133.41	103.51	576.39	80.88	8.24
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	46.72	1.63	0.10	24.51	86.34	112.13	2.70	1.44
		2	4.80	72.93	4.33	2.05	90.61	111.64	297.30	54.37	4.41
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	108.18	0.79	0.59	19.63	130.29	44.87	15.06	0.75
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	88.74	3.56	2.33	83.66	121.21	229.37	60.33	3.63
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	1.20	0.00	0.33	4.67	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	3.91	5.22	74.86	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	24.18	5.22	463.53	7.92	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.20	6.96	60.36	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	12.90	6.96	185.49	1.58	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	C	1	0.00	2.23	19.13	11.65	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	117.00	0.00	117.00	
	D	1	0.00	10.69	12.17	87.84	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	D-1	1	0.00	0.33	12.17	2.70	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.92	1.37	3.59	30.09
		2	19.05	10.03	1.90	56.86
	Ax	1	212.95	7.10	30.00	19.27
	B	1	5.32	1.90	2.80	51.52
		2	12.60	6.80	1.85	77.73
	Bx	1	55.94	1.86	30.00	16.95
	C	1	5.06	1.55	3.26	121.38
	Cx	1	3.63	0.12	30.00	16.77
	D	1	16.73	6.45	2.59	97.14
	Dx	1	105.75	3.53	30.00	16.52
	D-1	1	68.88	2.62	26.24	9.60

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	3.91	0.03	3.59	1.00	0.00	18.47
		2	0.00	0.00	✓	24.31	3.15	16.90	1.00	0.00	141.65
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.20	0.10	3.90	1.00	0.00	25.95
		2	0.00	0.00	✓	13.00	2.15	11.16	1.00	0.00	95.02
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.26	0.62	2.22	1.00	0.00	20.38
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	10.86	2.50	9.80	1.00	0.00	87.29
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.33	0.33	0.33	1.00	0.00	4.67

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
11	24/03/2022 17:41:40	24/03/2022 17:41:41	08:00	130	545.18	37.00	88.19	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	88	0	5032	767	18.82	373.63	19.81	393.44

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5632	5632	0		88		13	817

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	11.45	23.65	28.54	8.45	525.37	28.06	1365.80	214.26	19.81

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	463.53	0.00	176.00	0.00	176.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	515.44	54.91	9.39

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	545.18

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	137.9	140.7	138.3	0.0	0.0	0.0	0.0
	2	113.9	0.0	28.9	114.1	0.0	0.0	0.0	0.0
	3	46.9	73.4	0.0	47.0	0.0	0.0	0.0	0.0
	4	68.3	68.0	97.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		137.91		6	137.91
2	1	3	27		140.66		27	140.66
3	1	4	13		138.34		13	138.34
9	3	4	148		47.04		148	47.04
11	4	2	127		68.04		127	68.04
13	4	1	6		68.29		6	68.29
16	3	2	635		73.39		635	73.39
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	315		97.00		315	97.00
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	16		46.86		16	46.86
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	235		114.09		235	114.09
50	2	1	4		113.91		4	113.91
51	2	3	984		28.87		984	28.87

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		164	1800	51	0.00	23	339	30.09	26.49	65.04
	2	(untitled)	1	1	B		635 <	1800	51	0.00	88	13	56.86	53.26	103.51
Ax	1	(untitled)					1326	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		133	1800	26	0.00	36	181	51.52	46.72	86.34
	2	(untitled)	1	1	D		315 <	1800	26	0.00	84	19	77.73	72.93	111.64
Bx	1	(untitled)					396	Unrestricted	130	29.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		46	1800	4	1.00	66	51	121.38	108.18	130.29
Cx	1	(untitled)					26	Unrestricted	130	117.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		239	1800	19	0.00	86	16	97.14	88.74	121.21
Dx	1	(untitled)					768	Unrestricted	130	29.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	984	3250	70	0.00	55	83	9.60	1.20	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	510.84	43.34	11.79	17.86	8.45	373.63	19.81	0.00	393.44
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	515.44	54.91	9.39	28.54	8.45	525.37	19.81	0.00	545.18

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 15

Version: 15.5.2.7994

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 4 - PM.t16
Path: M:\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 4
Report generation date: 25/03/2022 08:15:49

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

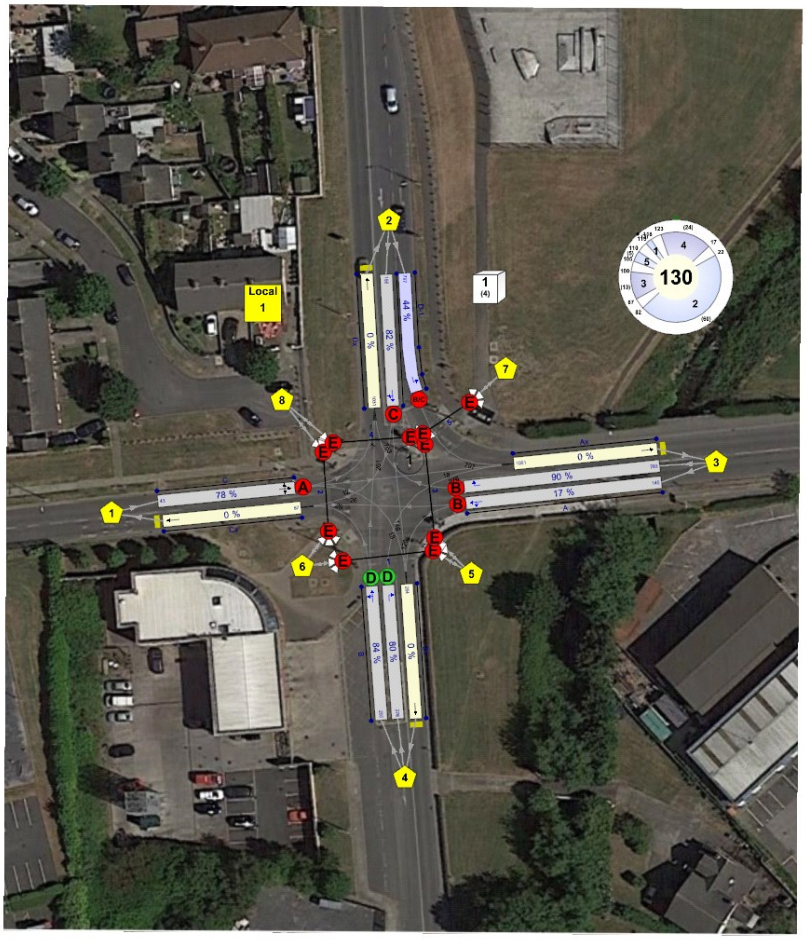
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



(untitled)
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2019 SURVEYED FLOWS
D1 - 2019 SURVEYED FLOWS, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	25/03/2022 08:14:20	25/03/2022 08:14:22	17:00	130	389.17	26.43	68.98	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2019 SURVEYED FLOWS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2019 SURVEYED FLOWS,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	119	119
	2	554	554
Ax	1	843	843
B	1	214	214
	2	226	226
Bx	1	224	224
C	1	36	36
Cx	1	55	55
D	1	121	121
Dx	1	750	750
D-1	1	602	602

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	15	15	0	0	0	0
	2	10	0	602	111	0	0	0	0
	3	21	554	0	98	0	0	0	0
	4	24	190	226	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	15
	3		1	4	C/1, Bx/1	Normal	15
	9		3	4	A/1, Bx/1	Normal	98
	11		4	2	B/1, Dx/1	Normal	190
	13		4	1	B/1, Cx/1	Normal	24
	16		3	2	A/2, Dx/1	Normal	554
	20		4	3	B/2, Ax/1	Normal	226
	45		3	1	A/1, Cx/1	Normal	21
	49		2	4	D/1, Bx/1	Normal	111
	50		2	1	D/1, Cx/1	Normal	10
	51		2	3	D-1/1, Ax/1	Normal	602

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 21, 83, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	21	27	1	3
	3	✓	2	B	26	83	57	1	3
	4	✓	3	C	88	100	12	1	3
	5	✓	5	E	105	110	5	1	5

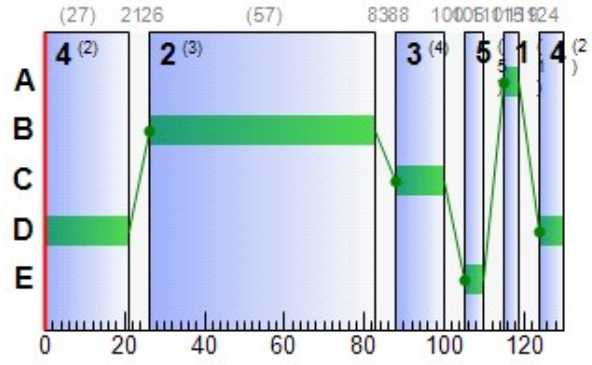
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	26	83	57
	C	1	✓	88	100	12
	D	1	✓	124	21	27
	E	1	✓	105	110	5

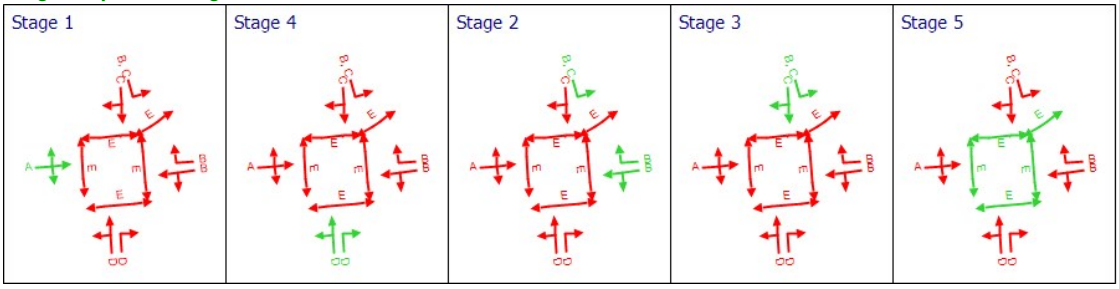
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	26	83	57
A	2	1	1	B	26	83	57
B	1	1	1	D	124	21	27
B	2	1	1	D	124	21	27
C	1	1	1	A	115	119	4
D	1	1	1	C	88	100	12
D-1	1	1	1	B	26	83	57

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	15	575	119	1800	57	21.74	2.56	49.03	10.21	0.87	11.08
		2	69	45	554	1800	57	33.73	16.61	318.34	73.71	5.68	79.39
	Ax	1	0	Unrestricted	843	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	55	81	214	1800	27	51.08	7.17	103.11	43.12	2.46	45.58
		2	58	72	226	1800	27	52.18	7.68	110.47	46.51	2.64	49.15
	Bx	1	0	Unrestricted	224	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	52	92	36	1800	4	88.27	1.54	8.04	12.53	0.53	13.06
	Cx	1	0	Unrestricted	55	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	49	121	1800	12	76.08	4.86	39.93	36.31	1.67	37.98
	Dx	1	0	Unrestricted	750	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	33	199	602	3296	69	0.50	0.08	0.69	1.19	0.00	1.19

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	119	119	0		1800	803	15		575	0.00	0.0	57
		2	554	554	0		1800	803	69		45	0.00	0.0	57
	Ax	1	843	843	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	0.0	130
	B	1	214	214	0		1800	388	55		81	0.00	0.0	27
		2	226	226	0		1800	388	58		72	0.00	0.0	27
	Bx	1	224	224	0		Unrestricted	Unrestricted	0		Unrestricted	0.94	0.0	130
	C	1	36	36	0		1800	69	52		92	0.00	0.0	4
	Cx	1	55	55	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	0.0	130
	D	1	121	121	0		1800	180	67		49	0.00	0.0	12
	Dx	1	750	750	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D-1	1	602	602	0		3296	1800	33		199	0.00	9.9	69

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	21.74	0.71	0.01	10.21	58.32	69.04	0.36	0.87
		2	3.60	33.73	4.43	0.76	73.71	81.80	432.36	20.80	5.68
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	51.08	2.70	0.34	43.12	91.82	187.28	9.22	2.46
		2	4.80	52.18	2.87	0.40	46.51	93.12	199.44	11.01	2.64
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	88.27	0.61	0.27	12.53	116.44	34.84	7.08	0.53
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	76.08	1.90	0.66	36.31	109.75	115.21	17.59	1.67
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.50	0.00	0.08	1.19	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.56	5.22	49.03	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	16.61	5.22	318.34	3.29	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	7.17	6.96	103.11	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	7.68	6.96	110.47	0.04	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	1.54	19.13	8.04	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	87.00	0.00	87.00	
	D	1	0.00	4.86	12.17	39.93	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	24.00	0.00	24.00	
	D-1	1	0.00	0.08	12.17	0.69	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	3.57	0.84	4.26	25.34
		2	16.62	5.74	2.89	37.33
	Ax	1	135.38	4.51	30.00	19.27
	B	1	8.56	3.32	2.58	55.88
		2	9.04	3.58	2.53	56.98
	Bx	1	31.64	1.05	30.00	16.95
	C	1	3.96	1.01	3.90	101.47
	Cx	1	7.69	0.26	30.00	16.77
	D	1	8.47	2.84	2.98	84.48
	Dx	1	103.28	3.44	30.00	16.52
	D-1	1	42.14	1.49	28.31	8.90

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	2.56	0.01	2.39	1.00	0.00	11.08
		2	0.00	0.00	✓	16.61	0.76	11.84	1.00	0.00	79.39
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	7.17	0.34	6.40	1.00	0.00	45.58
		2	0.00	0.00	✓	7.69	0.40	6.81	1.00	0.00	49.15
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.55	0.28	1.53	1.00	0.00	13.06
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	4.88	0.67	4.61	1.00	0.00	37.98
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.08	0.08	0.08	1.00	0.00	1.19

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	25/03/2022 08:14:20	25/03/2022 08:14:22	17:00	130	389.17	26.43	68.98	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	69	0	3744	773	15.14	223.59	13.85	237.43

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4344	4344	0		69		45	823

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	10.97	21.90	23.91	2.52	375.33	25.42	1038.17	66.06	13.85

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	318.34	0.00	147.00	0.00	147.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	374.95	39.67	9.45

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	389.17

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	118.0	120.7	118.4	0.0	0.0	0.0	0.0
	2	101.3	0.0	28.2	101.4	0.0	0.0	0.0	0.0
	3	42.1	53.9	0.0	42.3	0.0	0.0	0.0	0.0
	4	72.7	72.4	76.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		117.99		6	117.99
2	1	3	15		120.74		15	120.74
3	1	4	15		118.42		15	118.42
9	3	4	98		42.30		98	42.30
11	4	2	190		72.41		190	72.41
13	4	1	24		72.65		24	72.65
16	3	2	554		53.86		554	53.86
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	226		76.25		226	76.25
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	21		42.12		21	42.12
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	111		101.43		111	101.43
50	2	1	10		101.25		10	101.25
51	2	3	602		28.17		602	28.17

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		119	1800	57	0.00	15	575	25.34	21.74	58.32	
	2	(untitled)	1	1	B		554 <	1800	57	0.00	69	45	37.33	33.73	81.80	
Ax	1	(untitled)					843	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		214 <	1800	27	0.00	55	81	55.88	51.08	91.82	
	2	(untitled)	1	1	D		226 <	1800	27	0.00	58	72	56.98	52.18	93.12	
Bx	1	(untitled)					224	Unrestricted	130	34.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		36	1800	4	2.00	52	92	101.47	88.27	116.44	
Cx	1	(untitled)					55	Unrestricted	130	87.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		121	1800	12	0.00	67	49	84.48	76.08	109.75	
Dx	1	(untitled)					750	Unrestricted	130	24.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	602	3296	69	0.00	33	199	8.90	0.50	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	370.35	28.09	13.18	13.22	2.52	223.59	13.85	0.00	237.43
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	374.95	39.67	9.45	23.91	2.52	375.33	13.85	0.00	389.17

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO NOTHING
D2 - 2023 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	25/03/2022 08:14:22	25/03/2022 08:14:24	17:00	130	415.87	28.22	73.59	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO NOTHING		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	127	127
	2	591	591
Ax	1	899	899
B	1	229	229
	2	241	241
Bx	1	239	239
C	1	38	38
Cx	1	59	59
D	1	129	129
Dx	1	800	800
D-1	1	642	642

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	16	16	0	0	0	0
	2	11	0	642	118	0	0	0	0
	3	22	591	0	105	0	0	0	0
	4	26	203	241	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	16
	3		1	4	C/1, Bx/1	Normal	16
	9		3	4	A/1, Bx/1	Normal	105
	11		4	2	B/1, Dx/1	Normal	203
	13		4	1	B/1, Cx/1	Normal	26
	16		3	2	A/2, Dx/1	Normal	591
	20		4	3	B/2, Ax/1	Normal	241
	45		3	1	A/1, Cx/1	Normal	22
	49		2	4	D/1, Bx/1	Normal	118
	50		2	1	D/1, Cx/1	Normal	11
	51		2	3	D-1/1, Ax/1	Normal	642

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	82	57	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

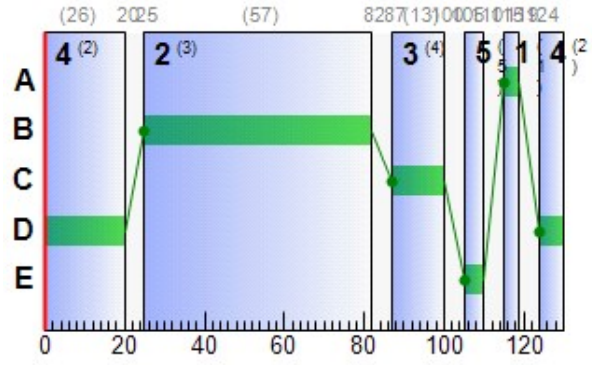
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	82	57
	C	1	✓	87	100	13
	D	1	✓	124	20	26
	E	1	✓	105	110	5

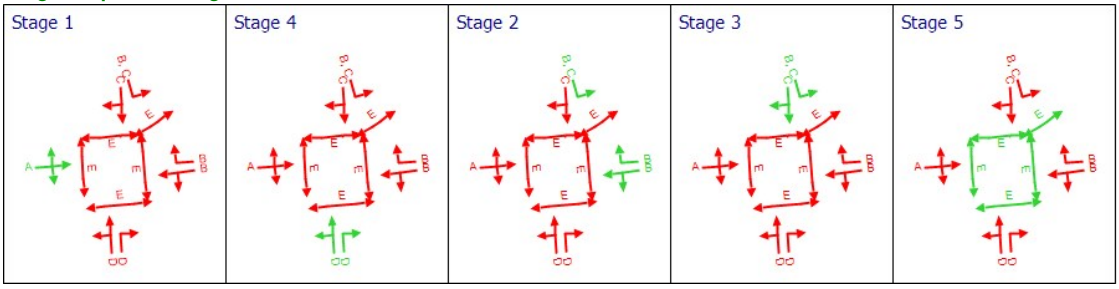
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	82	57
A	2	1	1	B	25	82	57
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	87	100	13
D-1	1	1	1	B	25	82	57

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	16	532	127	1800	57	21.89	2.73	52.35	10.96	0.93	11.90
		2	74	36	591	1800	57	35.83	18.57	356.01	83.53	6.31	89.84
	Ax	1	0	Unrestricted	899	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	61	63	229	1800	26	54.25	7.92	113.84	49.00	2.72	51.73
		2	64	55	241	1800	26	55.69	8.47	121.81	52.94	2.91	55.85
	Bx	1	0	Unrestricted	239	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	55	82	38	1800	4	91.41	1.66	8.66	13.70	0.56	14.27
	Cx	1	0	Unrestricted	59	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	50	129	1800	13	73.51	5.08	41.73	37.41	1.74	39.15
	Dx	1	0	Unrestricted	800	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	36	180	642	3250	70	0.55	0.10	0.81	1.40	0.00	1.40

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	127	127	0		1800	803	16		532	0.00	0.0	57
		2	591	591	0		1800	803	74		36	0.00	0.0	57
	Ax	1	899	899	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	0.0	130
	B	1	229	229	0		1800	374	61		63	0.00	0.0	26
		2	241	241	0		1800	374	64		55	0.00	0.0	26
	Bx	1	239	239	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	0.0	130
	C	1	38	38	0		1800	69	55		82	0.00	0.0	4
	Cx	1	59	59	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	0.0	130
	D	1	129	129	0		1800	194	67		50	0.00	0.0	13
	Dx	1	800	800	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	0.0	130
	D-1	1	642	642	0		3250	1800	36		180	0.00	10.3	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	21.89	0.76	0.01	10.96	58.62	74.03	0.41	0.93
		2	3.60	35.83	4.87	1.01	83.53	85.18	475.83	27.61	6.31
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	54.25	2.97	0.48	49.00	94.80	204.08	13.02	2.72
		2	4.80	55.69	3.15	0.57	52.94	96.32	216.49	15.64	2.91
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	91.41	0.65	0.32	13.70	118.57	36.78	8.28	0.56
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	73.51	2.00	0.64	37.41	107.68	121.87	17.04	1.74
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.55	0.00	0.10	1.40	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.73	5.22	52.35	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	18.57	5.22	356.01	4.23	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	7.92	6.96	113.84	0.06	0.00	0.00	0.00	0.00	0.00	
		2	0.00	8.47	6.96	121.81	0.14	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	1.66	19.13	8.66	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	84.00	0.00	84.00	
	D	1	0.00	5.08	12.17	41.73	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	25.00	0.00	25.00	
	D-1	1	0.00	0.10	12.17	0.81	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	3.81	0.90	4.24	25.49
		2	17.73	6.47	2.74	39.43
	Ax	1	144.38	4.81	30.00	19.27
	B	1	9.16	3.76	2.44	59.05
		2	9.64	4.05	2.38	60.49
	Bx	1	33.76	1.13	30.00	16.95
	C	1	4.18	1.10	3.79	104.61
	Cx	1	8.25	0.27	30.00	16.77
	D	1	9.03	2.94	3.08	81.91
	Dx	1	110.16	3.67	30.00	16.52
	D-1	1	44.94	1.60	28.14	8.95

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	2.73	0.01	2.55	1.00	0.00	11.90
		2	0.00	0.00	✓	18.58	1.02	12.84	1.00	0.00	89.84
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	7.92	0.48	7.03	1.00	0.00	51.73
		2	0.00	0.00	✓	8.48	0.58	7.47	1.00	0.00	55.85
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.67	0.32	1.64	1.00	0.00	14.27
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.09	0.65	4.81	1.00	0.00	39.15
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.10	0.10	0.10	1.00	0.00	1.40

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	25/03/2022 08:14:22	25/03/2022 08:14:24	17:00	130	415.87	28.22	73.59	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	74	0	3994	773	15.80	248.95	15.19	264.13

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4594	4594	0		74		36	823

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.02	22.11	25.09	3.13	400.69	26.36	1129.08	82.00	15.19

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	356.01	0.00	145.00	0.00	145.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	399.63	42.27	9.45

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	415.87

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	121.1	123.9	121.6	0.0	0.0	0.0	0.0
	2	98.7	0.0	28.2	98.9	0.0	0.0	0.0	0.0
	3	42.3	56.0	0.0	42.4	0.0	0.0	0.0	0.0
	4	75.8	75.6	79.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		121.14		6	121.14
2	1	3	16		123.88		16	123.88
3	1	4	16		121.56		16	121.56
9	3	4	105		42.44		105	42.44
11	4	2	203		75.58		203	75.58
13	4	1	26		75.82		26	75.82
16	3	2	591		55.96		591	55.96
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	241		79.76		241	79.76
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	22		42.26		22	42.26
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	118		98.86		118	98.86
50	2	1	11		98.68		11	98.68
51	2	3	642		28.23		642	28.23

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		127	1800	57	0.00	16	532	25.49	21.89	58.62	
	2	(untitled)	1	1	B		591 <	1800	57	0.00	74	36	39.43	35.83	85.18	
Ax	1	(untitled)					899	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		229 <	1800	26	0.00	61	63	59.05	54.25	94.80	
	2	(untitled)	1	1	D		241 <	1800	26	0.00	64	55	60.49	55.69	96.32	
Bx	1	(untitled)					239	Unrestricted	130	34.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		38	1800	4	2.00	55	82	104.61	91.41	118.57	
Cx	1	(untitled)					59	Unrestricted	130	84.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		129	1800	13	0.00	67	50	81.91	73.51	107.68	
Dx	1	(untitled)					800	Unrestricted	130	25.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	642	3250	70	0.00	36	180	8.95	0.55	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	395.03	30.70	12.87	14.40	3.13	248.95	15.19	0.00	264.13
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	399.63	42.27	9.45	25.09	3.13	400.69	15.19	0.00	415.87

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2023 DO SOMETHING
D3 - 2023 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	25/03/2022 08:14:24	25/03/2022 08:14:25	17:00	130	432.47	29.33	76.02	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO SOMETHING		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	127	127
	2	621	621
Ax	1	921	921
B	1	239	239
	2	241	241
Bx	1	243	243
C	1	38	38
Cx	1	59	59
D	1	133	133
Dx	1	840	840
D-1	1	664	664

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	6	16	16	0	0	0	0
	2	11	0	664	122	0	0	0	0
	3	22	621	0	105	0	0	0	0
	4	26	213	241	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	6
	2		1	3	C/1, Ax/1	Normal	16
	3		1	4	C/1, Bx/1	Normal	16
	9		3	4	A/1, Bx/1	Normal	105
	11		4	2	B/1, Dx/1	Normal	213
	13		4	1	B/1, Cx/1	Normal	26
	16		3	2	A/2, Dx/1	Normal	621
	20		4	3	B/2, Ax/1	Normal	241
	45		3	1	A/1, Cx/1	Normal	22
	49		2	4	D/1, Bx/1	Normal	122
	50		2	1	D/1, Cx/1	Normal	11
	51		2	3	D-1/1, Ax/1	Normal	664

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	118, 19, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	118	3	1	3
	2	✓	4	D	123	19	26	1	3
	3	✓	2	B	24	82	58	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

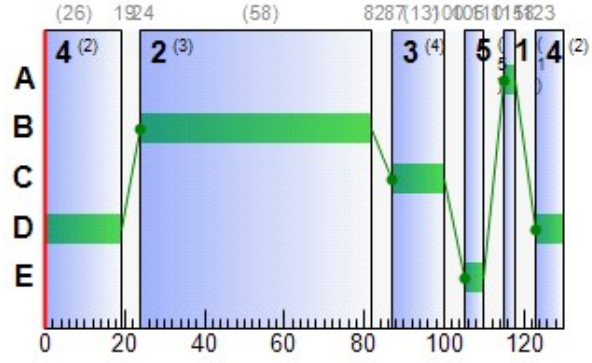
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	118	3
	B	1	✓	24	82	58
	C	1	✓	87	100	13
	D	1	✓	123	19	26
	E	1	✓	105	110	5

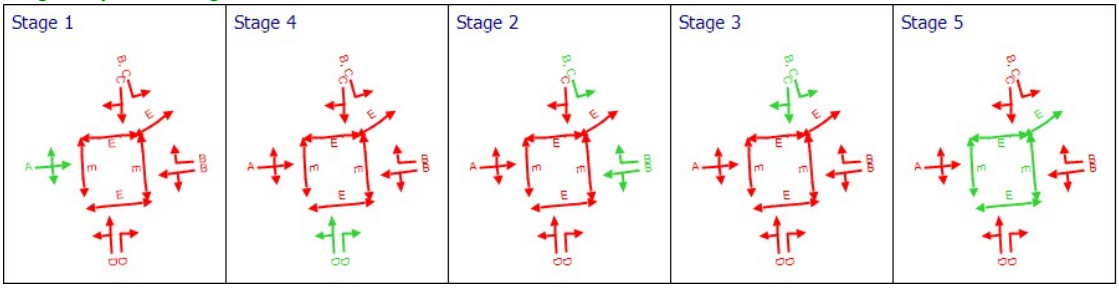
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	24	82	58
A	2	1	1	B	24	82	58
B	1	1	1	D	123	19	26
B	2	1	1	D	123	19	26
C	1	1	1	A	115	118	3
D	1	1	1	C	87	100	13
D-1	1	1	1	B	24	82	58

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	16	543	127	1800	58	21.28	2.70	51.66	10.66	0.92	11.58
		2	76	32	621	1800	58	36.45	19.81	379.72	89.29	6.75	96.03
	Ax	1	0	Unrestricted	921	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	64	56	239	1800	26	55.44	8.39	120.61	52.27	2.88	55.15
		2	64	55	241	1800	26	55.69	8.47	121.81	52.94	2.91	55.85
	Bx	1	0	Unrestricted	243	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	69	46	38	1800	3	124.06	2.00	10.46	18.59	0.67	19.26
	Cx	1	0	Unrestricted	59	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	69	46	133	1800	13	75.30	5.33	43.82	39.50	1.83	41.33
	Dx	1	0	Unrestricted	840	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	37	171	664	3205	71	0.58	0.11	0.88	1.53	0.00	1.53

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	127	127	0		1800	817	16		543	0.00	0.0	58
		2	621	621	0		1800	817	76		32	0.00	0.0	58
	Ax	1	921	921	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	0.0	130
	B	1	239	239	0		1800	374	64		56	0.00	0.0	26
		2	241	241	0		1800	374	64		55	0.00	0.0	26
	Bx	1	243	243	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	0.0	130
	C	1	38	38	0		1800	55	69		46	0.00	0.0	3
	Cx	1	59	59	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	0.0	130
	D	1	133	133	0		1800	194	69		46	0.00	0.0	13
	Dx	1	840	840	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	0.0	130
	D-1	1	664	664	0		3205	1800	37		171	0.00	10.5	71

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	21.28	0.74	0.01	10.66	57.81	73.02	0.40	0.92
		2	3.60	36.45	5.11	1.18	89.29	86.65	505.78	32.29	6.75
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	55.44	3.12	0.56	52.27	96.15	214.63	15.17	2.88
		2	4.80	55.69	3.15	0.57	52.94	96.32	216.49	15.64	2.91
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	124.06	0.66	0.65	18.59	139.77	37.07	16.04	0.67
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	75.30	2.06	0.72	39.50	109.49	126.50	19.13	1.83
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.58	0.00	0.11	1.53	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.70	5.22	51.66	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	19.81	5.22	379.72	4.81	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	8.39	6.96	120.61	0.12	0.00	0.00	0.00	0.00	0.00	
		2	0.00	8.47	6.96	121.81	0.14	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	C	1	0.00	2.00	19.13	10.46	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	84.00	0.00	84.00	
	D	1	0.00	5.33	12.17	43.82	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	D-1	1	0.00	0.11	12.17	0.88	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	3.81	0.88	4.34	24.88
		2	18.63	6.91	2.70	40.05
	Ax	1	147.91	4.93	30.00	19.27
	B	1	9.56	4.00	2.39	60.24
		2	9.64	4.05	2.38	60.49
	Bx	1	34.33	1.14	30.00	16.95
	C	1	4.18	1.45	2.89	137.26
	Cx	1	8.25	0.27	30.00	16.77
	D	1	9.31	3.09	3.01	83.70
	Dx	1	115.67	3.86	30.00	16.52
	D-1	1	46.48	1.66	28.05	8.98

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	2.70	0.01	2.52	1.00	0.00	11.58
		2	0.00	0.00	✓	19.82	1.19	13.44	1.00	0.00	96.03
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.40	0.56	7.40	1.00	0.00	55.15
		2	0.00	0.00	✓	8.48	0.58	7.47	1.00	0.00	55.85
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.05	0.69	2.02	1.00	0.00	19.26
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.35	0.73	5.02	1.00	0.00	41.33
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.11	0.11	0.11	1.00	0.00	1.53

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	25/03/2022 08:14:24	25/03/2022 08:14:25	17:00	130	432.47	29.33	76.02	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	76	0	4126	775	16.27	264.78	15.95	280.73

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4726	4726	0		76		32	825

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.03	22.34	25.53	3.80	416.52	26.92	1173.50	98.67	15.95

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	379.72	0.00	140.00	0.00	140.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	412.36	43.81	9.41

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	432.47

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	153.8	156.5	154.2	0.0	0.0	0.0	0.0
	2	100.5	0.0	28.3	100.6	0.0	0.0	0.0	0.0
	3	41.6	56.6	0.0	41.8	0.0	0.0	0.0	0.0
	4	77.0	76.8	79.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	6		153.78		6	153.78
2	1	3	16		156.53		16	156.53
3	1	4	16		154.21		16	154.21
9	3	4	105		41.83		105	41.83
11	4	2	213		76.76		213	76.76
13	4	1	26		77.01		26	77.01
16	3	2	621		56.57		621	56.57
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	241		79.76		241	79.76
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	22		41.65		22	41.65
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	122		100.65		122	100.65
50	2	1	11		100.47		11	100.47
51	2	3	664		28.26		664	28.26

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		127	1800	58	0.00	16	543	24.88	21.28	57.81
	2	(untitled)	1	1	B		621 <	1800	58	0.00	76	32	40.05	36.45	86.65
Ax	1	(untitled)					921	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		239 <	1800	26	0.00	64	56	60.24	55.44	96.15
	2	(untitled)	1	1	D		241 <	1800	26	0.00	64	55	60.49	55.69	96.32
Bx	1	(untitled)					243	Unrestricted	130	32.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		38	1800	3	1.00	69	46	137.26	124.06	139.77
Cx	1	(untitled)					59	Unrestricted	130	84.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		133	1800	13	0.00	69	46	83.70	75.30	109.49
Dx	1	(untitled)					840	Unrestricted	130	23.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	664	3205	71	0.00	37	171	8.98	0.58	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	407.76	32.24	12.65	14.84	3.80	264.78	15.95	0.00	280.73
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	412.36	43.81	9.41	25.53	3.80	416.52	15.95	0.00	432.47

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO NOTHING
D4 - 2025 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	25/03/2022 08:14:26	25/03/2022 08:14:28	17:00	130	431.67	29.28	75.96	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO NOTHING		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	131	131
	2	610	610
Ax	1	929	929
B	1	235	235
	2	249	249
Bx	1	247	247
C	1	41	41
Cx	1	60	60
D	1	133	133
Dx	1	826	826
D-1	1	663	663

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	17	17	0	0	0	0
	2	11	0	663	122	0	0	0	0
	3	23	610	0	108	0	0	0	0
	4	26	209	249	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	17
	3		1	4	C/1, Bx/1	Normal	17
	9		3	4	A/1, Bx/1	Normal	108
	11		4	2	B/1, Dx/1	Normal	209
	13		4	1	B/1, Cx/1	Normal	26
	16		3	2	A/2, Dx/1	Normal	610
	20		4	3	B/2, Ax/1	Normal	249
	45		3	1	A/1, Cx/1	Normal	23
	49		2	4	D/1, Bx/1	Normal	122
	50		2	1	D/1, Cx/1	Normal	11
	51		2	3	D-1/1, Ax/1	Normal	663

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	82	57	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

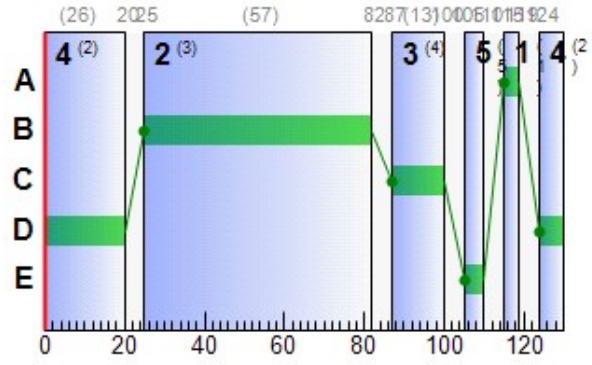
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	82	57
	C	1	✓	87	100	13
	D	1	✓	124	20	26
	E	1	✓	105	110	5

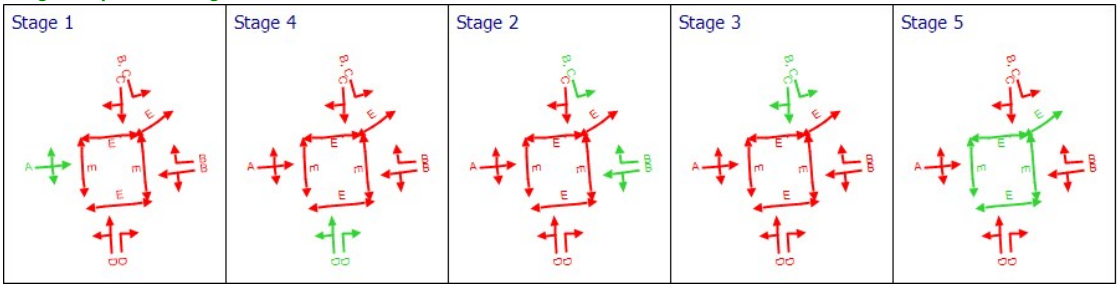
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	82	57
A	2	1	1	B	25	82	57
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	87	100	13
D-1	1	1	1	B	25	82	57

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	16	513	131	1800	57	21.95	2.82	54.01	11.34	0.96	12.31
		2	76	32	610	1800	57	37.10	19.48	373.30	89.27	6.66	95.93
	Ax	1	0	Unrestricted	929	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	63	59	235	1800	26	54.95	8.23	118.25	50.94	2.82	53.76
		2	67	50	249	1800	26	56.77	8.88	127.67	55.75	3.05	58.80
	Bx	1	0	Unrestricted	247	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	59	69	41	1800	4	96.80	1.85	9.66	15.65	0.63	16.28
	Cx	1	0	Unrestricted	60	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	69	46	133	1800	13	75.30	5.33	43.82	39.50	1.83	41.33
	Dx	1	0	Unrestricted	826	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	37	171	663	3250	70	0.58	0.11	0.88	1.52	0.00	1.52

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	131	131	0		1800	803	16		513	0.00	0.0	57
		2	610	610	0		1800	803	76		32	0.00	0.0	57
	Ax	1	929	929	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	0.0	130
	B	1	235	235	0		1800	374	63		59	0.00	0.0	26
		2	249	249	0		1800	374	67		50	0.00	0.0	26
	Bx	1	247	247	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	0.0	130
	C	1	41	41	0		1800	69	59		69	0.00	0.0	4
	Cx	1	60	60	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	0.0	130
	D	1	133	133	0		1800	194	69		46	0.00	0.0	13
	Dx	1	826	826	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	0.0	130
	D-1	1	663	663	0		3250	1800	37		171	0.00	10.7	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	21.95	0.78	0.02	11.34	58.65	76.40	0.44	0.96
		2	3.60	37.10	5.11	1.18	89.27	87.03	498.76	32.14	6.66
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	54.95	3.06	0.52	50.94	95.79	210.84	14.27	2.82
		2	4.80	56.77	3.28	0.65	55.75	97.61	225.35	17.69	3.05
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	96.80	0.70	0.40	15.65	122.17	39.68	10.41	0.63
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	75.30	2.06	0.72	39.50	109.49	126.50	19.13	1.83
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.58	0.00	0.11	1.52	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.82	5.22	54.01	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	19.48	5.22	373.30	4.67	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	8.23	6.96	118.25	0.10	0.00	0.00	0.00	0.00	0.00	
		2	0.00	8.88	6.96	127.67	0.21	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	C	1	0.00	1.85	19.13	9.66	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	83.00	0.00	83.00	
	D	1	0.00	5.33	12.17	43.82	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	D-1	1	0.00	0.11	12.17	0.88	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	3.93	0.93	4.23	25.55
		2	18.30	6.90	2.65	40.70
	Ax	1	149.19	4.97	30.00	19.27
	B	1	9.40	3.90	2.41	59.75
		2	9.96	4.26	2.34	61.57
	Bx	1	34.89	1.16	30.00	16.95
	C	1	4.51	1.25	3.60	110.00
	Cx	1	8.39	0.28	30.00	16.77
	D	1	9.31	3.09	3.01	83.70
	Dx	1	113.74	3.79	30.00	16.52
	D-1	1	46.41	1.65	28.05	8.98

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	2.82	0.02	2.64	1.00	0.00	12.31
		2	0.00	0.00	✓	19.49	1.19	13.39	1.00	0.00	95.93
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.23	0.53	7.25	1.00	0.00	53.76
		2	0.00	0.00	✓	8.89	0.66	7.78	1.00	0.00	58.80
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.86	0.42	1.84	1.00	0.00	16.28
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.35	0.73	5.02	1.00	0.00	41.33
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.11	0.11	0.11	1.00	0.00	1.52

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	25/03/2022 08:14:26	25/03/2022 08:14:28	17:00	130	431.67	29.28	75.96	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	76	0	4124	773	16.23	263.99	15.94	279.93

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4724	4724	0		76		32	823

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.04	22.31	25.68	3.59	415.73	26.92	1177.53	94.08	15.94

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	373.30	0.00	139.00	0.00	139.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	412.63	43.77	9.43

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	431.67

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	126.5	129.3	127.0	0.0	0.0	0.0	0.0
	2	100.5	0.0	28.3	100.6	0.0	0.0	0.0	0.0
	3	42.3	57.2	0.0	42.5	0.0	0.0	0.0	0.0
	4	76.5	76.3	80.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		126.52		7	126.52
2	1	3	17		129.27		17	129.27
3	1	4	17		126.95		17	126.95
9	3	4	108		42.50		108	42.50
11	4	2	209		76.28		209	76.28
13	4	1	26		76.52		26	76.52
16	3	2	610		57.23		610	57.23
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	249		80.84		249	80.84
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	23		42.32		23	42.32
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	122		100.65		122	100.65
50	2	1	11		100.47		11	100.47
51	2	3	663		28.25		663	28.25

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		131	1800	57	0.00	16	513	25.55	21.95	58.65	
	2	(untitled)	1	1	B		610 <	1800	57	0.00	76	32	40.70	37.10	87.03	
Ax	1	(untitled)					929	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		235 <	1800	26	0.00	63	59	59.75	54.95	95.79	
	2	(untitled)	1	1	D		249 <	1800	26	0.00	67	50	61.57	56.77	97.61	
Bx	1	(untitled)					247	Unrestricted	130	31.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		41	1800	4	2.00	59	69	110.00	96.80	122.17	
Cx	1	(untitled)					60	Unrestricted	130	83.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		133	1800	13	0.00	69	46	83.70	75.30	109.49	
Dx	1	(untitled)					826	Unrestricted	130	23.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	663	3250	70	0.00	37	171	8.98	0.58	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	408.03	32.19	12.68	15.00	3.59	263.99	15.94	0.00	279.93
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	412.63	43.77	9.43	25.68	3.59	415.73	15.94	0.00	431.67

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - 2025 DO SOMETHING
D5 - 2025 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	25/03/2022 08:14:28	25/03/2022 08:14:30	17:00	130	458.41	31.08	79.81	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO SOMETHING		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	131	131
	2	652	652
Ax	1	960	960
B	1	249	249
	2	249	249
Bx	1	253	253
C	1	41	41
Cx	1	60	60
D	1	139	139
Dx	1	882	882
D-1	1	694	694

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	17	17	0	0	0	0
	2	11	0	694	128	0	0	0	0
	3	23	652	0	108	0	0	0	0
	4	26	223	249	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	17
	3		1	4	C/1, Bx/1	Normal	17
	9		3	4	A/1, Bx/1	Normal	108
	11		4	2	B/1, Dx/1	Normal	223
	13		4	1	B/1, Cx/1	Normal	26
	16		3	2	A/2, Dx/1	Normal	652
	20		4	3	B/2, Ax/1	Normal	249
	45		3	1	A/1, Cx/1	Normal	23
	49		2	4	D/1, Bx/1	Normal	128
	50		2	1	D/1, Cx/1	Normal	11
	51		2	3	D-1/1, Ax/1	Normal	694

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	118, 19, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	118	3	1	3
	2	✓	4	D	123	19	26	1	3
	3	✓	2	B	24	82	58	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

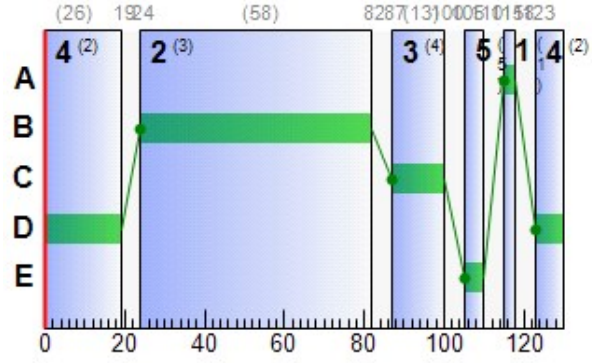
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	118	3
	B	1	✓	24	82	58
	C	1	✓	87	100	13
	D	1	✓	123	19	26
	E	1	✓	105	110	5

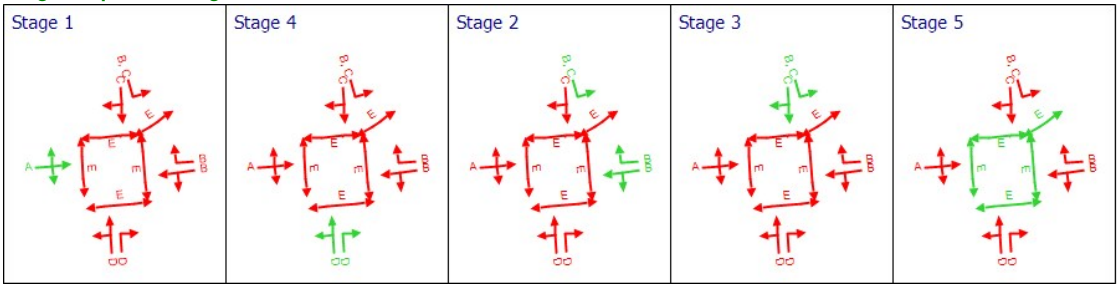
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	24	82	58
A	2	1	1	B	24	82	58
B	1	1	1	D	123	19	26
B	2	1	1	D	123	19	26
C	1	1	1	A	115	118	3
D	1	1	1	C	87	100	13
D-1	1	1	1	B	24	82	58

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	16	524	131	1800	58	21.34	2.78	53.30	11.03	0.95	11.98
		2	80	25	652	1800	58	38.87	21.64	414.72	99.97	7.36	107.33
	Ax	1	0	Unrestricted	960	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	67	50	249	1800	26	56.77	8.88	127.67	55.75	3.05	58.80
		2	67	50	249	1800	26	56.77	8.88	127.67	55.75	3.05	58.80
	Bx	1	0	Unrestricted	253	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	74	35	41	1800	3	138.37	2.32	12.14	22.38	0.76	23.14
	Cx	1	0	Unrestricted	60	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	72	39	139	1800	13	78.35	5.69	46.70	42.96	1.95	44.90
	Dx	1	0	Unrestricted	882	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	39	159	694	3205	71	0.63	0.12	0.99	1.72	0.00	1.72

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	131	131	0		1800	817	16		524	0.00	0.0	58
		2	652	652	0		1800	817	80		25	0.00	0.0	58
	Ax	1	960	960	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	0.0	130
	B	1	249	249	0		1800	374	67		50	0.00	0.0	26
		2	249	249	0		1800	374	67		50	0.00	0.0	26
	Bx	1	253	253	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	0.0	130
	C	1	41	41	0		1800	55	74		35	0.00	0.0	3
	Cx	1	60	60	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	0.0	130
	D	1	139	139	0		1800	194	72		39	0.00	0.0	13
	Dx	1	882	882	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	0.0	130
	D-1	1	694	694	0		3205	1800	39		159	0.00	11.0	71

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	21.34	0.76	0.02	11.03	57.86	75.38	0.42	0.95
		2	3.60	38.87	5.51	1.53	99.97	90.03	545.20	41.80	7.36
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	56.77	3.28	0.65	55.75	97.61	225.35	17.69	3.05
		2	4.80	56.77	3.28	0.65	55.75	97.61	225.35	17.69	3.05
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	138.37	0.71	0.86	22.38	148.17	40.00	20.75	0.76
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	78.35	2.17	0.86	42.96	111.65	132.39	22.81	1.95
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.63	0.00	0.12	1.72	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.78	5.22	53.30	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	21.64	5.22	414.72	5.79	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	8.88	6.96	127.67	0.21	0.00	0.00	0.00	0.00	0.00	
		2	0.00	8.88	6.96	127.67	0.21	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	C	1	0.00	2.32	19.13	12.14	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	82.00	0.00	82.00	
	D	1	0.00	5.69	12.17	46.70	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	22.00	0.00	22.00	
	D-1	1	0.00	0.12	12.17	0.99	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	3.93	0.91	4.33	24.94
		2	19.56	7.69	2.54	42.47
	Ax	1	154.17	5.14	30.00	19.27
	B	1	9.96	4.26	2.34	61.57
		2	9.96	4.26	2.34	61.57
	Bx	1	35.74	1.19	30.00	16.95
	C	1	4.51	1.73	2.61	151.57
	Cx	1	8.39	0.28	30.00	16.77
	D	1	9.73	3.35	2.90	86.75
	Dx	1	121.45	4.05	30.00	16.52
	D-1	1	48.58	1.74	27.92	9.03

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	2	0.00	0.00	✓	21.66	1.56	14.41	1.00	0.00	107.33
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.89	0.66	7.78	1.00	0.00	58.80
		2	0.00	0.00	✓	8.89	0.66	7.78	1.00	0.00	58.80
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.40	0.94	2.38	1.00	0.00	23.14
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.71	0.88	5.36	1.00	0.00	44.90
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.12	0.12	0.12	1.00	0.00	1.72

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	25/03/2022 08:14:28	25/03/2022 08:14:30	17:00	130	458.41	31.08	79.81	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	80	0	4310	775	17.03	289.56	17.11	306.67

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4910	4910	0		80		25	825

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.06	22.79	26.38	4.69	441.30	27.80	1243.66	121.17	17.11

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	414.72	0.00	135.00	0.00	135.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	430.58	46.17	9.33

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	458.41

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	168.1	170.8	168.5	0.0	0.0	0.0	0.0
	2	103.5	0.0	28.3	103.7	0.0	0.0	0.0	0.0
	3	41.7	59.0	0.0	41.9	0.0	0.0	0.0	0.0
	4	78.3	78.1	80.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		168.09		7	168.09
2	1	3	17		170.84		17	170.84
3	1	4	17		168.52		17	168.52
9	3	4	108		41.89		108	41.89
11	4	2	223		78.09		223	78.09
13	4	1	26		78.34		26	78.34
16	3	2	652		59.00		652	59.00
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	249		80.84		249	80.84
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	23		41.71		23	41.71
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	128		103.70		128	103.70
50	2	1	11		103.52		11	103.52
51	2	3	694		28.30		694	28.30

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		131	1800	58	0.00	16	524	24.94	21.34	57.86
	2	(untitled)	1	1	B		652 <	1800	58	0.00	80	25	42.47	38.87	90.03
Ax	1	(untitled)					960	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		249 <	1800	26	0.00	67	50	61.57	56.77	97.61
	2	(untitled)	1	1	D		249 <	1800	26	0.00	67	50	61.57	56.77	97.61
Bx	1	(untitled)					253	Unrestricted	130	30.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		41	1800	3	1.00	74	35	151.57	138.37	148.17
Cx	1	(untitled)					60	Unrestricted	130	82.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		139	1800	13	0.00	72	39	86.75	78.35	111.65
Dx	1	(untitled)					882	Unrestricted	130	22.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	694	3205	71	0.00	39	159	9.03	0.63	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	425.98	34.59	12.31	15.70	4.69	289.56	17.11	0.00	306.67
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	430.58	46.17	9.33	26.38	4.69	441.30	17.11	0.00	458.41

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - 2027 DO NOTHING
D6 - 2027 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	25/03/2022 08:14:30	25/03/2022 08:14:32	17:00	130	441.62	29.94	77.45	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO NOTHING		D6	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	134	134
	2	622	622
Ax	1	947	947
B	1	240	240
	2	254	254
Bx	1	252	252
C	1	41	41
Cx	1	62	62
D	1	136	136
Dx	1	842	842
D-1	1	676	676

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	17	17	0	0	0	0
	2	11	0	676	125	0	0	0	0
	3	24	622	0	110	0	0	0	0
	4	27	213	254	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	17
	3		1	4	C/1, Bx/1	Normal	17
	9		3	4	A/1, Bx/1	Normal	110
	11		4	2	B/1, Dx/1	Normal	213
	13		4	1	B/1, Cx/1	Normal	27
	16		3	2	A/2, Dx/1	Normal	622
	20		4	3	B/2, Ax/1	Normal	254
	45		3	1	A/1, Cx/1	Normal	24
	49		2	4	D/1, Bx/1	Normal	125
	50		2	1	D/1, Cx/1	Normal	11
	51		2	3	D-1/1, Ax/1	Normal	676

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	82	57	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

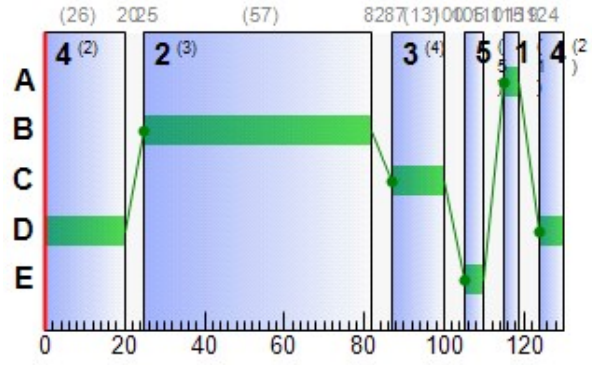
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	82	57
	C	1	✓	87	100	13
	D	1	✓	124	20	26
	E	1	✓	105	110	5

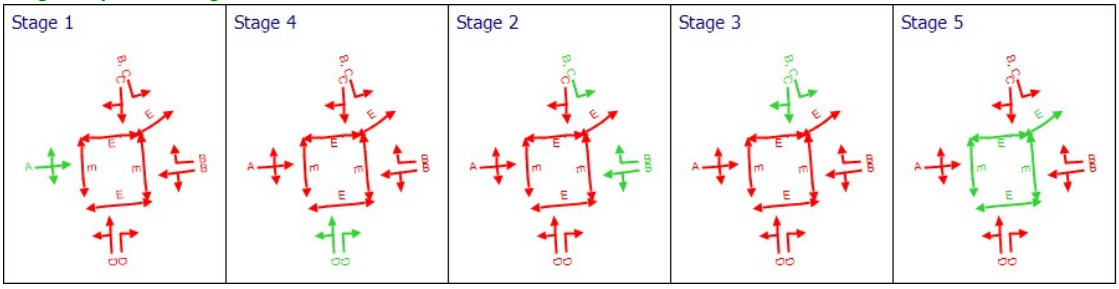
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	82	57
A	2	1	1	B	25	82	57
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	87	100	13
D-1	1	1	1	B	25	82	57

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	17	499	134	1800	57	22.00	2.88	55.25	11.63	0.99	12.61
		2	77	29	622	1800	57	37.99	20.13	385.89	93.21	6.88	100.10
	Ax	1	0	Unrestricted	947	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	64	56	240	1800	26	55.57	8.43	121.21	52.60	2.90	55.50
		2	68	47	254	1800	26	57.48	9.10	130.81	57.59	3.12	60.72
	Bx	1	0	Unrestricted	252	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	59	69	41	1800	4	96.80	1.85	9.66	15.65	0.63	16.28
	Cx	1	0	Unrestricted	62	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	70	43	136	1800	13	76.76	5.51	45.23	41.18	1.89	43.06
	Dx	1	0	Unrestricted	842	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	38	166	676	3250	70	0.60	0.11	0.93	1.60	0.00	1.60

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	134	134	0		1800	803	17		499	0.00	0.0	57
		2	622	622	0		1800	803	77		29	0.00	0.0	57
	Ax	1	947	947	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	0.0	130
	B	1	240	240	0		1800	374	64		56	0.00	0.0	26
		2	254	254	0		1800	374	68		47	0.00	0.0	26
	Bx	1	252	252	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	0.0	130
	C	1	41	41	0		1800	69	59		69	0.00	0.0	4
	Cx	1	62	62	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	0.0	130
	D	1	136	136	0		1800	194	70		43	0.00	0.0	13
	Dx	1	842	842	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	0.0	130
	D-1	1	676	676	0		3250	1800	38		166	0.00	10.9	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	22.00	0.80	0.02	11.63	58.67	78.15	0.46	0.99
		2	3.60	37.99	5.26	1.30	93.21	88.28	513.60	35.50	6.88
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	55.57	3.14	0.57	52.60	96.24	215.56	15.40	2.90
		2	4.80	57.48	3.35	0.70	57.59	98.12	230.10	19.12	3.12
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	96.80	0.70	0.40	15.65	122.17	39.68	10.41	0.63
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	76.76	2.12	0.78	41.18	110.56	129.49	20.88	1.89
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.60	0.00	0.11	1.60	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.88	5.22	55.25	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	20.13	5.22	385.89	5.01	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	8.43	6.96	121.21	0.13	0.00	0.00	0.00	0.00	0.00	
		2	0.00	9.10	6.96	130.81	0.26	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	C	1	0.00	1.85	19.13	9.66	0.00	0.00	0.00	2.00	0.00	2.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	82.00	0.00	82.00	
	D	1	0.00	5.51	12.17	45.23	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	D-1	1	0.00	0.11	12.17	0.93	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.02	0.95	4.22	25.60
		2	18.66	7.19	2.60	41.59
	Ax	1	152.09	5.07	30.00	19.27
	B	1	9.60	4.02	2.39	60.37
		2	10.16	4.39	2.31	62.28
	Bx	1	35.60	1.19	30.00	16.95
	C	1	4.51	1.25	3.60	110.00
	Cx	1	8.66	0.29	30.00	16.77
	D	1	9.52	3.22	2.96	85.16
	Dx	1	115.94	3.86	30.00	16.52
	D-1	1	47.32	1.69	28.00	9.00

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	2.88	0.02	2.70	1.00	0.00	12.61
		2	0.00	0.00	✓	20.15	1.32	13.76	1.00	0.00	100.10
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.44	0.57	7.44	1.00	0.00	55.50
		2	0.00	0.00	✓	9.11	0.71	7.98	1.00	0.00	60.72
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	1.86	0.42	1.84	1.00	0.00	16.28
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.53	0.80	5.19	1.00	0.00	43.06
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.11	0.11	0.11	1.00	0.00	1.60

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	25/03/2022 08:14:30	25/03/2022 08:14:32	17:00	130	441.62	29.94	77.45	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	77	0	4206	773	16.48	273.47	16.40	289.88

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	4806	4806	0		77		29	823

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.05	22.43	26.06	3.89	425.21	27.22	1206.57	101.77	16.40

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	385.89	0.00	138.00	0.00	138.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	420.68	44.70	9.41

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	441.62

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	126.5	129.3	127.0	0.0	0.0	0.0	0.0
	2	101.9	0.0	28.3	102.1	0.0	0.0	0.0	0.0
	3	42.4	58.1	0.0	42.6	0.0	0.0	0.0	0.0
	4	77.1	76.9	81.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		126.52		7	126.52
2	1	3	17		129.27		17	129.27
3	1	4	17		126.95		17	126.95
9	3	4	110		42.55		110	42.55
11	4	2	213		76.89		213	76.89
13	4	1	27		77.14		27	77.14
16	3	2	622		58.12		622	58.12
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	254		81.56		254	81.56
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	24		42.37		24	42.37
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	125		102.11		125	102.11
50	2	1	11		101.93		11	101.93
51	2	3	676		28.27		676	28.27

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		134	1800	57	0.00	17	499	25.60	22.00	58.67	
	2	(untitled)	1	1	B		622 <	1800	57	0.00	77	29	41.59	37.99	88.28	
Ax	1	(untitled)					947	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		240 <	1800	26	0.00	64	56	60.37	55.57	96.24	
	2	(untitled)	1	1	D		254 <	1800	26	0.00	68	47	62.28	57.48	98.12	
Bx	1	(untitled)					252	Unrestricted	130	31.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		41	1800	4	2.00	59	69	110.00	96.80	122.17	
Cx	1	(untitled)					62	Unrestricted	130	82.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		136	1800	13	0.00	70	43	85.16	76.76	110.56	
Dx	1	(untitled)					842	Unrestricted	130	23.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	676	3250	70	0.00	38	166	9.00	0.60	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	416.08	33.13	12.56	15.37	3.89	273.47	16.40	0.00	289.88
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	420.68	44.70	9.41	26.06	3.89	425.21	16.40	0.00	441.62

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - 2027 DO SOMETHING
D7 - 2027 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	25/03/2022 08:14:32	25/03/2022 08:14:34	17:00	130	501.93	34.01	85.34	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO SOMETHING		D7	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	134	134
	2	709	709
Ax	1	1010	1010
B	1	270	270
	2	254	254
Bx	1	262	262
C	1	41	41
Cx	1	62	62
D	1	146	146
Dx	1	959	959
D-1	1	739	739

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	17	17	0	0	0	0
	2	11	0	739	135	0	0	0	0
	3	24	709	0	110	0	0	0	0
	4	27	243	254	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	17
	3		1	4	C/1, Bx/1	Normal	17
	9		3	4	A/1, Bx/1	Normal	110
	11		4	2	B/1, Dx/1	Normal	243
	13		4	1	B/1, Cx/1	Normal	27
	16		3	2	A/2, Dx/1	Normal	709
	20		4	3	B/2, Ax/1	Normal	254
	45		3	1	A/1, Cx/1	Normal	24
	49		2	4	D/1, Bx/1	Normal	135
	50		2	1	D/1, Cx/1	Normal	11
	51		2	3	D-1/1, Ax/1	Normal	739

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	118, 18, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	118	3	1	3
	2	✓	4	D	123	18	25	1	3
	3	✓	2	B	23	82	59	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

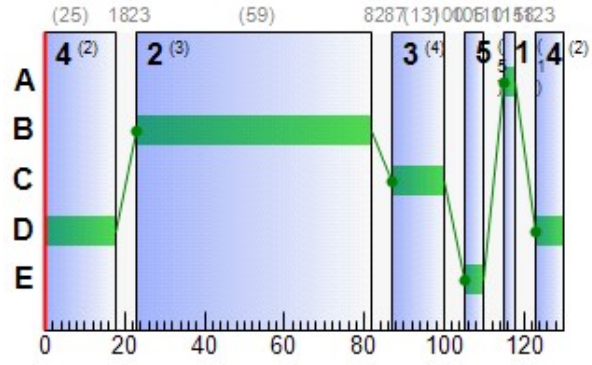
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	118	3
	B	1	✓	23	82	59
	C	1	✓	87	100	13
	D	1	✓	123	18	25
	E	1	✓	105	110	5

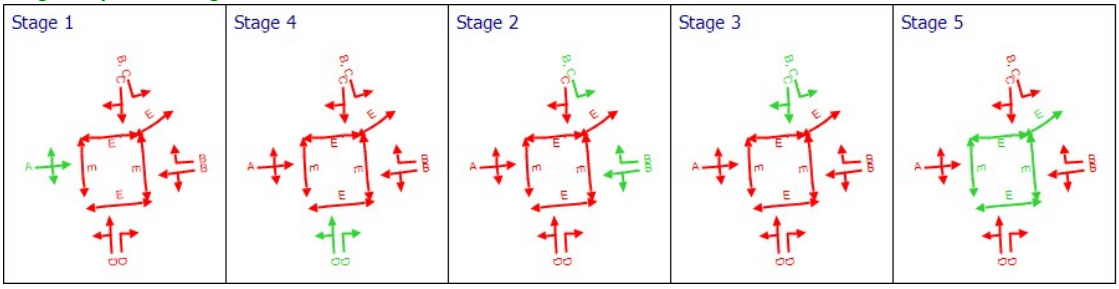
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	23	82	59
A	2	1	1	B	23	82	59
B	1	1	1	D	123	18	25
B	2	1	1	D	123	18	25
C	1	1	1	A	115	118	3
D	1	1	1	C	87	100	13
D-1	1	1	1	B	23	82	59

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	16	520	134	1800	59	20.79	2.81	53.80	10.99	0.96	11.95
		2	85	17	709	1800	59	43.08	25.01	479.33	120.47	8.51	128.99
	Ax	1	0	Unrestricted	1010	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	75	33	270	1800	25	63.36	10.23	147.07	67.48	3.50	70.98
		2	71	42	254	1800	25	60.08	9.36	134.53	60.20	3.20	63.39
	Bx	1	0	Unrestricted	262	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	74	35	41	1800	3	138.37	2.32	12.14	22.38	0.76	23.14
	Cx	1	0	Unrestricted	62	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	75	33	146	1800	13	82.67	6.18	50.75	47.61	2.11	49.71
	Dx	1	0	Unrestricted	959	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	41	144	739	3162	72	0.70	0.14	1.17	2.03	0.00	2.03

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	134	134	0		1800	831	16		520	0.00	0.0	59
		2	709	709	0		1800	831	85		17	0.00	0.0	59
	Ax	1	1010	1010	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	0.0	130
	B	1	270	270	0		1800	360	75		33	0.00	0.0	25
		2	254	254	0		1800	360	71		42	0.00	0.0	25
	Bx	1	262	262	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	0.0	130
	C	1	41	41	0		1800	55	74		35	0.00	0.0	3
	Cx	1	62	62	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D	1	146	146	0		1800	194	75		33	0.00	0.0	13
	Dx	1	959	959	0		Unrestricted	Unrestricted	0		Unrestricted	0.65	0.0	130
	D-1	1	739	739	0		3162	1800	41		144	0.00	11.5	72

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	20.79	0.76	0.02	10.99	57.10	76.08	0.43	0.96
		2	3.60	43.08	6.12	2.36	120.47	95.75	614.97	63.87	8.51
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	63.36	3.67	1.08	67.48	103.49	250.31	29.12	3.50
		2	4.80	60.08	3.42	0.82	60.20	100.36	232.66	22.25	3.20
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	138.37	0.71	0.86	22.38	148.17	40.00	20.75	0.76
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	82.67	2.28	1.07	47.61	115.11	139.94	28.13	2.11
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.70	0.00	0.14	2.03	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.81	5.22	53.80	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	25.01	5.22	479.33	7.73	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	10.23	6.96	147.07	0.56	0.00	0.00	0.00	0.00	0.00	
		2	0.00	9.36	6.96	134.53	0.32	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	28.00	0.00	28.00	
	C	1	0.00	2.32	19.13	12.14	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	80.00	0.00	80.00	
	D	1	0.00	6.18	12.17	50.75	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	21.00	0.00	21.00	
	D-1	1	0.00	0.14	12.17	1.17	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.02	0.91	4.43	24.39
		2	21.27	9.19	2.31	46.68
	Ax	1	162.20	5.41	30.00	19.27
	B	1	10.80	5.11	2.11	68.16
		2	10.16	4.58	2.22	64.88
	Bx	1	37.01	1.23	30.00	16.95
	C	1	4.51	1.73	2.61	151.57
	Cx	1	8.66	0.29	30.00	16.77
	D	1	10.22	3.69	2.77	91.07
	Dx	1	132.05	4.40	30.00	16.52
	D-1	1	51.73	1.87	27.71	9.10

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	2.81	0.02	2.62	1.00	0.00	11.95
		2	0.00	0.00	✓	25.07	2.42	16.21	1.00	0.00	128.99
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	10.25	1.10	8.90	1.00	0.00	70.98
		2	0.00	0.00	✓	9.37	0.83	8.17	1.00	0.00	63.39
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.40	0.94	2.38	1.00	0.00	23.14
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.22	1.11	5.81	1.00	0.00	49.71
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.14	0.14	0.14	1.00	0.00	2.03

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	25/03/2022 08:14:32	25/03/2022 08:14:34	17:00	130	501.93	34.01	85.34	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	85	0	4586	776	18.31	331.15	19.04	350.19

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5186	5186	0		85		17	826

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.09	23.61	27.65	6.35	482.89	29.28	1353.95	164.56	19.04

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	479.33	0.00	130.00	0.00	130.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	457.24	49.98	9.15

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	501.93

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	168.1	170.8	168.5	0.0	0.0	0.0	0.0
	2	107.8	0.0	28.4	108.0	0.0	0.0	0.0	0.0
	3	41.2	63.2	0.0	41.3	0.0	0.0	0.0	0.0
	4	84.9	84.7	84.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		168.09		7	168.09
2	1	3	17		170.84		17	170.84
3	1	4	17		168.52		17	168.52
9	3	4	110		41.34		110	41.34
11	4	2	243		84.68		243	84.68
13	4	1	27		84.93		27	84.93
16	3	2	709		63.20		709	63.20
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	254		84.15		254	84.15
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	24		41.16		24	41.16
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	135		108.02		135	108.02
50	2	1	11		107.84		11	107.84
51	2	3	739		28.37		739	28.37

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		134	1800	59	0.00	16	520	24.39	20.79	57.10
	2	(untitled)	1	1	B		709 <	1800	59	0.00	85	17	46.68	43.08	95.75
Ax	1	(untitled)					1010	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		270 <	1800	25	0.00	75	33	68.16	63.36	103.49
	2	(untitled)	1	1	D		254 <	1800	25	0.00	71	42	64.88	60.08	100.36
Bx	1	(untitled)					262	Unrestricted	130	28.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		41	1800	3	1.00	74	35	151.57	138.37	148.17
Cx	1	(untitled)					62	Unrestricted	130	80.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		146	1800	13	0.00	75	33	91.07	82.67	115.11
Dx	1	(untitled)					959	Unrestricted	130	21.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	739	3162	72	0.00	41	144	9.10	0.70	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	452.64	38.41	11.78	16.97	6.35	331.15	19.04	0.00	350.19
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	457.24	49.98	9.15	27.65	6.35	482.89	19.04	0.00	501.93

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A8 - 2032 DO NOTHING
D8 - 2032 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	25/03/2022 08:14:34	25/03/2022 08:14:36	17:00	130	471.19	31.93	81.44	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO NOTHING		D8	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	141	141
	2	654	654
Ax	1	996	996
B	1	252	252
	2	267	267
Bx	1	265	265
C	1	43	43
Cx	1	65	65
D	1	143	143
Dx	1	885	885
D-1	1	711	711

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	18	18	0	0	0	0
	2	12	0	711	131	0	0	0	0
	3	25	654	0	116	0	0	0	0
	4	28	224	267	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	18
	3		1	4	C/1, Bx/1	Normal	18
	9		3	4	A/1, Bx/1	Normal	116
	11		4	2	B/1, Dx/1	Normal	224
	13		4	1	B/1, Cx/1	Normal	28
	16		3	2	A/2, Dx/1	Normal	654
	20		4	3	B/2, Ax/1	Normal	267
	45		3	1	A/1, Cx/1	Normal	25
	49		2	4	D/1, Bx/1	Normal	131
	50		2	1	D/1, Cx/1	Normal	12
	51		2	3	D-1/1, Ax/1	Normal	711

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	119, 20, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	119	4	1	3
	2	✓	4	D	124	20	26	1	3
	3	✓	2	B	25	82	57	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

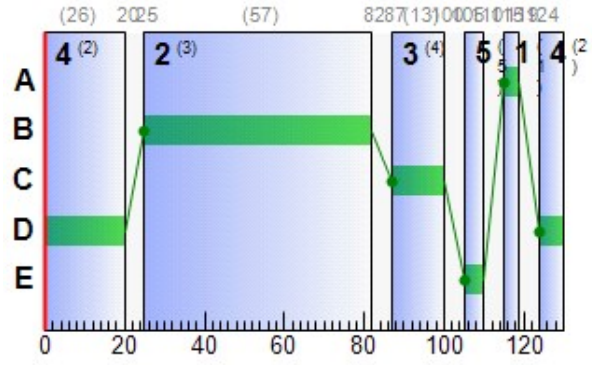
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	119	4
	B	1	✓	25	82	57
	C	1	✓	87	100	13
	D	1	✓	124	20	26
	E	1	✓	105	110	5

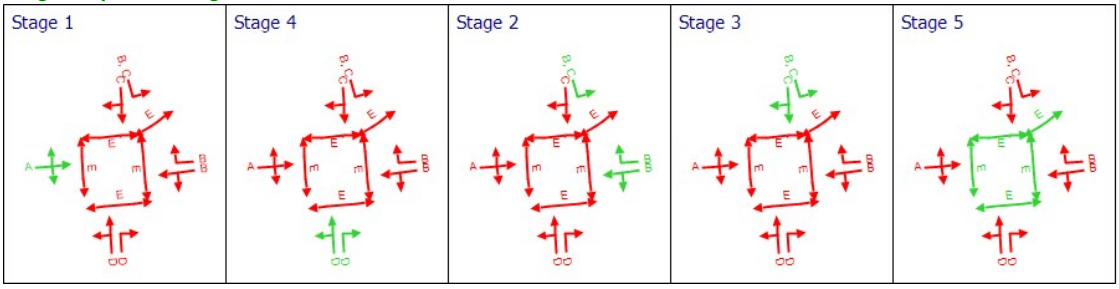
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	25	82	57
A	2	1	1	B	25	82	57
B	1	1	1	D	124	20	26
B	2	1	1	D	124	20	26
C	1	1	1	A	115	119	4
D	1	1	1	C	87	100	13
D-1	1	1	1	B	25	82	57

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	18	470	141	1800	57	22.11	3.07	58.91	12.30	1.05	13.35
		2	81	23	654	1800	57	40.83	22.26	426.57	105.32	7.55	112.87
	Ax	1	0	Unrestricted	996	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	67	48	252	1800	26	57.19	9.01	129.55	56.85	3.09	59.94
		2	71	40	267	1800	26	59.60	9.77	140.40	62.77	3.35	66.12
	Bx	1	0	Unrestricted	265	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	62	61	43	1800	4	100.94	2.00	10.45	17.12	0.68	17.80
	Cx	1	0	Unrestricted	65	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	74	36	143	1800	13	80.69	5.94	48.77	45.52	2.03	47.55
	Dx	1	0	Unrestricted	885	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	40	153	711	3250	70	0.65	0.13	1.06	1.83	0.00	1.83

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	141	141	0		1800	803	18		470	0.00	0.0	57
		2	654	654	0		1800	803	81		23	0.00	0.0	57
	Ax	1	996	996	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	0.0	130
	B	1	252	252	0		1800	374	67		48	0.00	0.0	26
		2	267	267	0		1800	374	71		40	0.00	0.0	26
	Bx	1	265	265	0		Unrestricted	Unrestricted	0		Unrestricted	0.92	0.0	130
	C	1	43	43	0		1800	69	62		61	0.00	0.0	4
	Cx	1	65	65	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	0.0	130
	D	1	143	143	0		1800	194	74		36	0.00	0.0	13
	Dx	1	885	885	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	0.0	130
	D-1	1	711	711	0		3250	1800	40		153	0.00	11.5	70

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	22.11	0.85	0.02	12.30	59.16	82.90	0.52	1.05
		2	3.60	40.83	5.69	1.73	105.32	92.09	555.30	46.97	7.55
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	57.19	3.32	0.68	56.85	97.92	228.22	18.53	3.09
		2	4.80	59.60	3.55	0.87	62.77	100.14	243.91	23.47	3.35
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	100.94	0.74	0.47	17.12	125.46	41.87	12.08	0.68
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	80.69	2.23	0.97	45.52	113.26	136.27	25.69	2.03
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.65	0.00	0.13	1.83	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	3.07	5.22	58.91	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	22.26	5.22	426.57	6.21	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	9.01	6.96	129.55	0.24	0.00	0.00	0.00	0.00	0.00	
		2	0.00	9.77	6.96	140.40	0.42	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	C	1	0.00	2.00	19.13	10.45	0.00	0.00	0.00	1.00	0.00	1.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	79.00	0.00	79.00	
	D	1	0.00	5.94	12.17	48.77	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	D-1	1	0.00	0.13	12.17	1.06	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.23	1.01	4.20	25.71
		2	19.62	8.07	2.43	44.43
	Ax	1	159.95	5.33	30.00	19.27
	B	1	10.08	4.34	2.32	61.99
		2	10.68	4.78	2.24	64.40
	Bx	1	37.43	1.25	30.00	16.95
	C	1	4.73	1.36	3.47	114.14
	Cx	1	9.08	0.30	30.00	16.77
	D	1	10.01	3.54	2.83	89.09
	Dx	1	121.86	4.06	30.00	16.52
	D-1	1	49.77	1.79	27.84	9.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	3.07	0.02	2.84	1.00	0.00	13.35
		2	0.00	0.00	✓	22.28	1.76	14.84	1.00	0.00	112.87
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	9.02	0.69	7.90	1.00	0.00	59.94
		2	0.00	0.00	✓	9.78	0.88	8.52	1.00	0.00	66.12
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.02	0.49	1.98	1.00	0.00	17.80
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	5.97	1.00	5.61	1.00	0.00	47.55
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.13	0.13	0.13	1.00	0.00	1.83

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	25/03/2022 08:14:34	25/03/2022 08:14:36	17:00	130	471.19	31.93	81.44	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	81	0	4422	773	17.30	301.70	17.75	319.45

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5022	5022	0		81		23	823

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.09	22.89	27.07	4.87	453.44	28.19	1288.47	127.27	17.75

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	426.57	0.00	133.00	0.00	133.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	442.06	47.40	9.33

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	471.19

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	130.7	133.4	131.1	0.0	0.0	0.0	0.0
	2	105.9	0.0	28.3	106.0	0.0	0.0	0.0	0.0
	3	42.5	61.0	0.0	42.7	0.0	0.0	0.0	0.0
	4	78.8	78.5	83.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		130.67		7	130.67
2	1	3	18		133.41		18	133.41
3	1	4	18		131.09		18	131.09
9	3	4	116		42.67		116	42.67
11	4	2	224		78.52		224	78.52
13	4	1	28		78.76		28	78.76
16	3	2	654		60.95		654	60.95
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	267		83.67		267	83.67
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	25		42.49		25	42.49
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	131		106.05		131	106.05
50	2	1	12		105.87		12	105.87
51	2	3	711		28.32		711	28.32

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		141	1800	57	0.00	18	470	25.71	22.11	59.16
	2	(untitled)	1	1	B		654 <	1800	57	0.00	81	23	44.43	40.83	92.09
Ax	1	(untitled)					996	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		252 <	1800	26	0.00	67	48	61.99	57.19	97.92
	2	(untitled)	1	1	D		267 <	1800	26	0.00	71	40	64.40	59.60	100.14
Bx	1	(untitled)					265	Unrestricted	130	30.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		43	1800	4	1.00	62	61	114.14	100.94	125.46
Cx	1	(untitled)					65	Unrestricted	130	79.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		143	1800	13	0.00	74	36	89.09	80.69	113.26
Dx	1	(untitled)					885	Unrestricted	130	23.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	711	3250	70	0.00	40	153	9.05	0.65	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	437.46	35.83	12.21	16.38	4.87	301.70	17.75	0.00	319.45
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	442.06	47.40	9.33	27.07	4.87	453.44	17.75	0.00	471.19

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A9 - 2032 DO SOMETHING
D9 - 2032 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	25/03/2022 08:14:36	25/03/2022 08:14:38	17:00	130	547.25	37.08	89.19	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO SOMETHING		D9	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	141	141
	2	741	741
Ax	1	1059	1059
B	1	282	282
	2	267	267
Bx	1	276	276
C	1	43	43
Cx	1	65	65
D	1	154	154
Dx	1	1002	1002
D-1	1	774	774

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	18	18	0	0	0	0
	2	12	0	774	142	0	0	0	0
	3	25	741	0	116	0	0	0	0
	4	28	254	267	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	18
	3		1	4	C/1, Bx/1	Normal	18
	9		3	4	A/1, Bx/1	Normal	116
	11		4	2	B/1, Dx/1	Normal	254
	13		4	1	B/1, Cx/1	Normal	28
	16		3	2	A/2, Dx/1	Normal	741
	20		4	3	B/2, Ax/1	Normal	267
	45		3	1	A/1, Cx/1	Normal	25
	49		2	4	D/1, Bx/1	Normal	142
	50		2	1	D/1, Cx/1	Normal	12
	51		2	3	D-1/1, Ax/1	Normal	774

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	118, 18, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	118	3	1	3
	2	✓	4	D	123	18	25	1	3
	3	✓	2	B	23	82	59	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

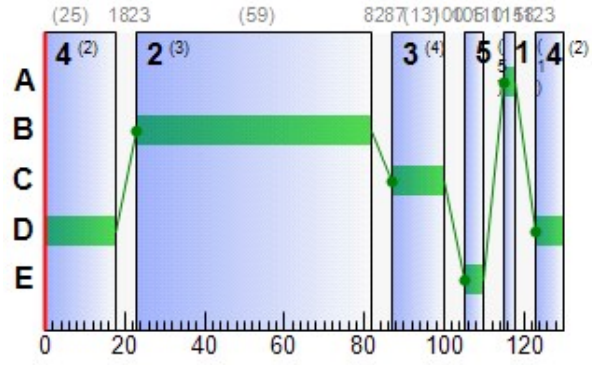
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	118	3
	B	1	✓	23	82	59
	C	1	✓	87	100	13
	D	1	✓	123	18	25
	E	1	✓	105	110	5

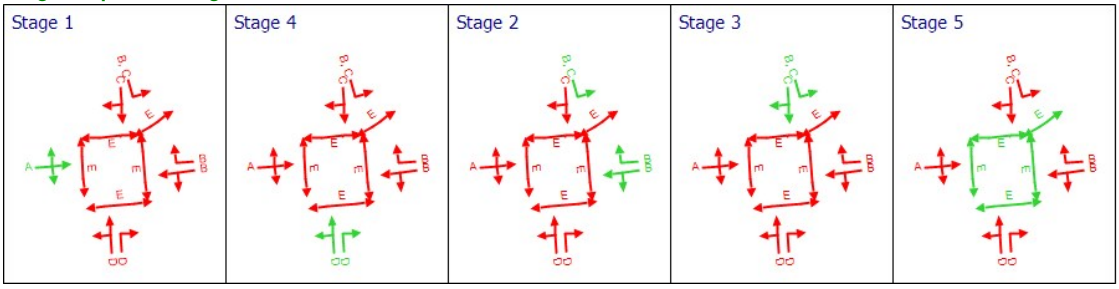
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	23	82	59
A	2	1	1	B	23	82	59
B	1	1	1	D	123	18	25
B	2	1	1	D	123	18	25
C	1	1	1	A	115	118	3
D	1	1	1	C	87	100	13
D-1	1	1	1	B	23	82	59

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	17	489	141	1800	59	20.89	2.95	56.63	11.62	1.01	12.63
		2	89	12	741	1800	59	48.37	27.65	529.98	141.38	9.43	150.81
	Ax	1	0	Unrestricted	1059	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	78	28	282	1800	25	66.48	10.98	157.81	73.94	3.76	77.70
		2	74	35	267	1800	25	62.68	10.07	144.81	66.01	3.44	69.45
	Bx	1	0	Unrestricted	276	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	78	29	43	1800	3	149.98	2.58	13.51	25.44	0.84	26.28
	Cx	1	0	Unrestricted	65	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	79	26	154	1800	13	88.96	6.77	55.65	54.04	2.31	56.35
	Dx	1	0	Unrestricted	1002	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	43	133	774	3162	72	0.75	0.16	1.33	2.30	0.00	2.30

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	141	141	0		1800	831	17		489	0.00	0.0	59
		2	741	741	0		1800	831	89		12	0.00	0.0	59
	Ax	1	1059	1059	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	0.0	130
	B	1	282	282	0		1800	360	78		28	0.00	0.0	25
		2	267	267	0		1800	360	74		35	0.00	0.0	25
	Bx	1	276	276	0		Unrestricted	Unrestricted	0		Unrestricted	0.92	0.0	130
	C	1	43	43	0		1800	55	78		29	0.00	0.0	3
	Cx	1	65	65	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	0.0	130
	D	1	154	154	0		1800	194	79		26	0.00	0.0	13
	Dx	1	1002	1002	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	0.0	130
	D-1	1	774	774	0		3162	1800	43		133	0.00	12.0	72

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	20.89	0.80	0.02	11.62	57.12	80.06	0.48	1.01
		2	3.60	48.37	6.59	3.36	141.38	101.45	661.49	90.26	9.43
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	66.48	3.86	1.34	73.94	106.20	263.49	35.99	3.76
		2	4.80	62.68	3.62	1.03	66.01	102.78	246.76	27.66	3.44
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	149.98	0.75	1.04	25.44	155.30	42.23	24.55	0.84
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	88.96	2.42	1.38	54.04	119.42	147.86	36.05	2.31
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.75	0.00	0.16	2.30	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	2.95	5.22	56.63	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	27.65	5.22	529.98	9.49	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	10.98	6.96	157.81	0.81	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.07	6.96	144.81	0.52	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	28.00	0.00	28.00	
	C	1	0.00	2.58	19.13	13.51	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	78.00	0.00	78.00	
	D	1	0.00	6.77	12.17	55.65	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	21.00	0.00	21.00	
	D-1	1	0.00	0.16	12.17	1.33	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.23	0.96	4.41	24.49
		2	22.23	10.70	2.08	51.97
	Ax	1	170.07	5.67	30.00	19.27
	B	1	11.28	5.58	2.02	71.28
		2	10.68	5.00	2.13	67.48
	Bx	1	38.99	1.30	30.00	16.95
	C	1	4.73	1.95	2.43	163.18
	Cx	1	9.08	0.30	30.00	16.77
	D	1	10.78	4.16	2.59	97.36
	Dx	1	137.98	4.60	30.00	16.52
	D-1	1	54.18	1.97	27.53	9.15

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	2.95	0.02	2.76	1.00	0.00	12.63
		2	0.00	0.00	✓	27.80	3.51	17.92	1.00	0.00	150.81
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	11.01	1.38	9.52	1.00	0.00	77.70
		2	0.00	0.00	✓	10.09	1.04	8.76	1.00	0.00	69.45
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.71	1.17	2.67	1.00	0.00	26.28
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.84	1.45	6.42	1.00	0.00	56.35
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.16	0.16	0.16	1.00	0.00	2.30

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	25/03/2022 08:14:36	25/03/2022 08:14:38	17:00	130	547.25	37.08	89.19	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	89	0	4804	776	19.78	374.73	20.77	395.51

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5404	5404	0		89		12	826

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.12	24.70	28.74	8.34	526.47	30.66	1441.88	214.99	20.77

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	529.98	0.00	127.00	0.00	127.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	478.83	53.77	8.90

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	547.25

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	179.7	182.4	180.1	0.0	0.0	0.0	0.0
	2	114.1	0.0	28.4	114.3	0.0	0.0	0.0	0.0
	3	41.3	68.5	0.0	41.4	0.0	0.0	0.0	0.0
	4	88.0	87.8	86.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		179.70		7	179.70
2	1	3	18		182.45		18	182.45
3	1	4	18		180.13		18	180.13
9	3	4	116		41.44		116	41.44
11	4	2	254		87.80		254	87.80
13	4	1	28		88.05		28	88.05
16	3	2	741		68.49		741	68.49
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	267		86.75		267	86.75
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	25		41.26		25	41.26
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	142		114.31		142	114.31
50	2	1	12		114.13		12	114.13
51	2	3	774		28.43		774	28.43

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	B		141	1800	59	0.00	17	489	24.49	20.89	57.12	
	2	(untitled)	1	1	B		741 <	1800	59	0.00	89	12	51.97	48.37	101.45	
Ax	1	(untitled)					1059	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00	
B	1	(untitled)	1	1	D		282 <	1800	25	0.00	78	28	71.28	66.48	106.20	
	2	(untitled)	1	1	D		267 <	1800	25	0.00	74	35	67.48	62.68	102.78	
Bx	1	(untitled)					276	Unrestricted	130	28.00	0	Unrestricted	16.95	0.00	0.00	
C	1	(untitled)	1	1	A		43	1800	3	0.00	78	29	163.18	149.98	155.30	
Cx	1	(untitled)					65	Unrestricted	130	78.00	0	Unrestricted	16.77	0.00	0.00	
D	1	(untitled)	1	1	C		154	1800	13	0.00	79	26	97.36	88.96	119.42	
Dx	1	(untitled)					1002	Unrestricted	130	21.00	0	Unrestricted	16.52	0.00	0.00	
D-1	1	(untitled)	1	1	B	C	774	3162	72	0.00	43	133	9.15	0.75	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	474.23	42.20	11.24	18.05	8.34	374.73	20.77	0.00	395.51
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	478.83	53.77	8.90	28.74	8.34	526.47	20.77	0.00	547.25

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A10 - 2042 DO NOTHING
D10 - 2042 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	25/03/2022 08:14:39	25/03/2022 08:14:40	17:00	130	495.64	33.59	82.75	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO NOTHING		D10	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	146	146
	2	676	676
Ax	1	1029	1029
B	1	261	261
	2	276	276
Bx	1	273	273
C	1	43	43
Cx	1	67	67
D	1	147	147
Dx	1	915	915
D-1	1	735	735

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	18	18	0	0	0	0
	2	12	0	735	135	0	0	0	0
	3	26	676	0	120	0	0	0	0
	4	29	232	276	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	18
	3		1	4	C/1, Bx/1	Normal	18
	9		3	4	A/1, Bx/1	Normal	120
	11		4	2	B/1, Dx/1	Normal	232
	13		4	1	B/1, Cx/1	Normal	29
	16		3	2	A/2, Dx/1	Normal	676
	20		4	3	B/2, Ax/1	Normal	276
	45		3	1	A/1, Cx/1	Normal	26
	49		2	4	D/1, Bx/1	Normal	135
	50		2	1	D/1, Cx/1	Normal	12
	51		2	3	D-1/1, Ax/1	Normal	735

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	118, 19, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	118	3	1	3
	2	✓	4	D	123	19	26	1	3
	3	✓	2	B	24	82	58	1	3
	4	✓	3	C	87	100	13	1	3

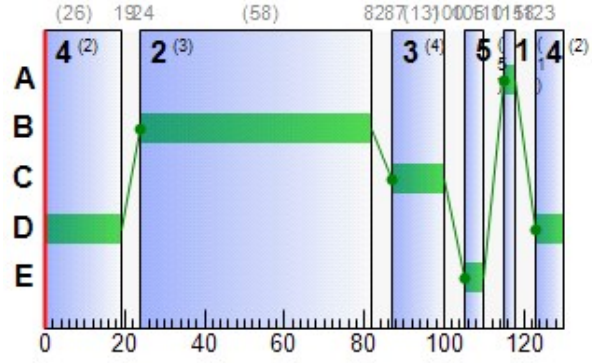
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	118	3
	B	1	✓	24	82	58
	C	1	✓	87	100	13
	D	1	✓	123	19	26
	E	1	✓	105	110	5

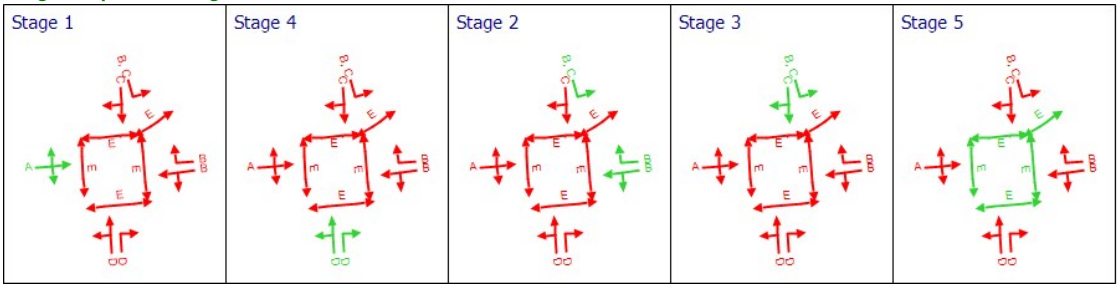
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	24	82	58
A	2	1	1	B	24	82	58
B	1	1	1	D	123	19	26
B	2	1	1	D	123	19	26
C	1	1	1	A	115	118	3
D	1	1	1	C	87	100	13
D-1	1	1	1	B	24	82	58

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	18	460	146	1800	58	21.59	3.14	60.23	12.43	1.07	13.50
		2	83	21	676	1800	58	41.22	23.13	443.31	109.92	7.89	117.82
	Ax	1	0	Unrestricted	1029	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	70	43	261	1800	26	58.58	9.49	136.37	60.31	3.25	63.56
		2	74	35	276	1800	26	61.31	10.28	147.81	66.75	3.53	70.28
	Bx	1	0	Unrestricted	273	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	78	29	43	1800	3	149.98	2.58	13.51	25.44	0.84	26.28
	Cx	1	0	Unrestricted	67	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	76	32	147	1800	13	83.37	6.25	51.32	48.34	2.13	50.47
	Dx	1	0	Unrestricted	915	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	41	145	735	3205	71	0.69	0.14	1.16	2.00	0.00	2.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	146	146	0		1800	817	18		460	0.00	0.0	58
		2	676	676	0		1800	817	83		21	0.00	0.0	58
	Ax	1	1029	1029	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	0.0	130
	B	1	261	261	0		1800	374	70		43	0.00	0.0	26
		2	276	276	0		1800	374	74		35	0.00	0.0	26
	Bx	1	273	273	0		Unrestricted	Unrestricted	0		Unrestricted	0.91	0.0	130
	C	1	43	43	0		1800	55	78		29	0.00	0.0	3
	Cx	1	67	67	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	0.0	130
	D	1	147	147	0		1800	194	76		32	0.00	0.0	13
	Dx	1	915	915	0		Unrestricted	Unrestricted	0		Unrestricted	0.67	0.0	130
	D-1	1	735	735	0		3205	1800	41		145	0.00	11.6	71

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	21.59	0.86	0.02	12.43	58.55	84.94	0.54	1.07
		2	3.60	41.22	5.83	1.91	109.92	93.10	577.45	51.89	7.89
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	58.58	3.46	0.79	60.31	99.41	238.12	21.34	3.25
		2	4.80	61.31	3.70	1.01	66.75	101.89	254.07	27.15	3.53
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	149.98	0.75	1.04	25.44	155.30	42.23	24.55	0.84
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	83.37	2.30	1.10	48.34	115.62	140.97	29.00	2.13
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.69	0.00	0.14	2.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	3.14	5.22	60.23	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	23.13	5.22	443.31	6.64	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	9.49	6.96	136.37	0.35	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.28	6.96	147.81	0.57	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	C	1	0.00	2.58	19.13	13.51	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	78.00	0.00	78.00	
	D	1	0.00	6.25	12.17	51.32	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	22.00	0.00	22.00	
	D-1	1	0.00	0.14	12.17	1.16	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.38	1.02	4.29	25.19
		2	20.28	8.42	2.41	44.82
	Ax	1	165.25	5.51	30.00	19.27
	B	1	10.44	4.60	2.27	63.38
		2	11.04	5.07	2.18	66.11
	Bx	1	38.56	1.29	30.00	16.95
	C	1	4.73	1.95	2.43	163.18
	Cx	1	9.36	0.31	30.00	16.77
	D	1	10.29	3.75	2.75	91.77
	Dx	1	126.00	4.20	30.00	16.52
	D-1	1	51.45	1.86	27.72	9.09

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	3.14	0.02	2.90	1.00	0.00	13.50
		2	0.00	0.00	✓	23.17	1.95	15.28	1.00	0.00	117.82
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	9.50	0.80	8.26	1.00	0.00	63.56
		2	0.00	0.00	✓	10.30	1.02	8.92	1.00	0.00	70.28
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.71	1.17	2.67	1.00	0.00	26.28
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.29	1.14	5.88	1.00	0.00	50.47
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.14	0.14	0.14	1.00	0.00	2.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	25/03/2022 08:14:39	25/03/2022 08:14:40	17:00	130	495.64	33.59	82.75	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	83	0	4568	775	18.05	325.19	18.71	343.90

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5168	5168	0		83		21	825

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.11	23.40	27.58	6.01	476.93	28.87	1337.77	154.47	18.71

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	443.31	0.00	129.00	0.00	129.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	456.39	49.54	9.21

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	495.64

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	179.7	182.4	180.1	0.0	0.0	0.0	0.0
	2	108.5	0.0	28.4	108.7	0.0	0.0	0.0	0.0
	3	42.0	61.3	0.0	42.1	0.0	0.0	0.0	0.0
	4	80.2	79.9	85.4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		179.70		7	179.70
2	1	3	18		182.45		18	182.45
3	1	4	18		180.13		18	180.13
9	3	4	120		42.14		120	42.14
11	4	2	232		79.90		232	79.90
13	4	1	29		80.15		29	80.15
16	3	2	676		61.35		676	61.35
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	276		85.38		276	85.38
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	26		41.96		26	41.96
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	135		108.72		135	108.72
50	2	1	12		108.54		12	108.54
51	2	3	735		28.36		735	28.36

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		146	1800	58	0.00	18	460	25.19	21.59	58.55
	2	(untitled)	1	1	B		676 <	1800	58	0.00	83	21	44.82	41.22	93.10
Ax	1	(untitled)					1029	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		261 <	1800	26	0.00	70	43	63.38	58.58	99.41
	2	(untitled)	1	1	D		276 <	1800	26	0.00	74	35	66.11	61.31	101.89
Bx	1	(untitled)					273	Unrestricted	130	29.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		43	1800	3	0.00	78	29	163.18	149.98	155.30
Cx	1	(untitled)					67	Unrestricted	130	78.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		147	1800	13	0.00	76	32	91.77	83.37	115.62
Dx	1	(untitled)					915	Unrestricted	130	22.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	735	3205	71	0.00	41	145	9.09	0.69	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	451.79	37.96	11.90	16.89	6.01	325.19	18.71	0.00	343.90
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	456.39	49.54	9.21	27.58	6.01	476.93	18.71	0.00	495.64

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A11 - 2042 DO SOMETHING
D11 - 2042 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
11	25/03/2022 08:14:41	25/03/2022 08:14:43	17:00	130	581.93	39.43	90.34	A/2	0	0	A/2	Dx/1	A/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO SOMETHING		D11	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
130		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
D-1	(untitled)		1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red	Max Turning Flow On Red (PCU/hr)
A	1	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			30.00	✓	Sum of lanes	1800	✓		Normal		
Ax	1	(untitled)		✓	160.60						Normal		
B	1	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
	2	(untitled)			40.00	✓	Sum of lanes	1800	✓		Normal		
Bx	1	(untitled)		✓	141.26						Normal		
C	1	(untitled)			110.00	✓	Sum of lanes	1800	✓		Normal		
Cx	1	(untitled)		✓	139.76						Normal		
D	1	(untitled)			70.00	✓	Sum of lanes	1800	✓		Normal		
Dx	1	(untitled)		✓	137.70						Normal		
D-1	1	(untitled)			70.00	✓	Sum of lanes	1800	✓	✓	Normal	✓	1800

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
D-1	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	146	146
	2	763	763
Ax	1	1091	1091
B	1	290	290
	2	276	276
Bx	1	284	284
C	1	43	43
Cx	1	67	67
D	1	158	158
Dx	1	1031	1031
D-1	1	797	797

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	B		
	2	1	B		
B	1	1	D		
	2	1	D		
C	1	1	A		
D	1	1	C		
D-1	1	1	B	✓	C

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	3.60	30.00
	2	3.60	30.00
B	1	4.80	30.00
	2	4.80	30.00
C	1	13.20	30.00
D	1	8.40	30.00
D-1	1	8.40	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	19.27	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	16.95	30.00	✓	Nearside	32.80
Cx	1	1	B/1	Cx/1	16.77	30.00	✓	Nearside	30.46
Dx	1	1	C/1	Dx/1	16.52	30.00	✓	Nearside	36.43
Ax	1	2	B/2	Ax/1	19.27	30.00	✓	Offside	54.32
Bx	1	2	C/1	Bx/1	16.95	30.00	✓	Offside	49.51
Cx	1	2	A/1	Cx/1	16.77	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	16.52	30.00	✓	Straight	Straight Movement
Ax	1	3	D-1/1	Ax/1	19.27	30.00	✓	Nearside	44.27
Bx	1	3	D/1	Bx/1	16.95	30.00	✓	Straight	Straight Movement
Cx	1	3	D/1	Cx/1	16.77	30.00	✓	Offside	46.99
Dx	1	3	A/2	Dx/1	16.52	30.00	✓	Offside	39.25

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
D-1	1	AllTraffic		

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40
5	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:2	4:2	3.00	2.00	5.40
2	5:2	3:1	3.00	2.00	5.40
3	4:2	3:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25		

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	7	18	18	0	0	0	0
	2	12	0	797	146	0	0	0	0
	3	26	763	0	120	0	0	0	0
	4	29	261	276	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D-1/1, D/1	Dx/1	#FF0000
	3	(untitled)	A/1, A/2	Ax/1	#00FF00
	4	(untitled)	B/1, B/2	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:1E	5:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	1		1	2	C/1, Dx/1	Normal	7
	2		1	3	C/1, Ax/1	Normal	18
	3		1	4	C/1, Bx/1	Normal	18
	9		3	4	A/1, Bx/1	Normal	120
	11		4	2	B/1, Dx/1	Normal	261
	13		4	1	B/1, Cx/1	Normal	29
	16		3	2	A/2, Dx/1	Normal	763
	20		4	3	B/2, Ax/1	Normal	276
	45		3	1	A/1, Cx/1	Normal	26
	49		2	4	D/1, Bx/1	Normal	146
	50		2	1	D/1, Cx/1	Normal	12
	51		2	3	D-1/1, Ax/1	Normal	797

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	5	4:1E, 4:2X, 3:1E, 3:2X	Normal	0
	18		8	6	2:2E, 2:1X	Normal	50
	21		7	5	5:1E, 5:2X, 3:1E, 3:2X	Normal	50
	22		7	8	5:1E, 5:2X, 4:2E, 4:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	46		5	8	3:2E, 3:1X, 4:2E, 4:1X	Normal	0
	47		8	7	4:1E, 4:2X, 5:2E, 5:1X	Normal	50
	48		5	7	3:2E, 3:1X, 5:2E, 5:1X	Normal	50

Signal Timings

Network Default: 130s cycle time; 130 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		3	NetworkDefault	130

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	3	120	0	0	Traffic	
	B	(untitled)	3	120	0	0	Traffic	
	C	(untitled)	3	120	0	0	Traffic	
	D	(untitled)	3	120	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	115, 46, 65, 90, 107
	2	(untitled)	Single	1, 5, 4, 2, 3	34, 51, 72, 4, 24
	3	(untitled)	Single	1, 4, 2, 3, 5	118, 17, 82, 100, 110
	4	(untitled)	Single	1, 3, 5, 4, 2	25, 60, 72, 91, 14
	5	(untitled)	Single	1, 3, 5, 2, 4	27, 63, 75, 112, 13
	6	(untitled)	Single	1, 5, 2, 3, 4	36, 53, 94, 116, 23
	7	(untitled)	Single	1, 5, 3, 2, 4	36, 53, 69, 118, 24
	8	(untitled)	Single	1, 3, 4, 2, 5	117, 24, 46, 91, 107
	9	(untitled)	Single	1, 4, 3, 2, 5	118, 25, 47, 92, 108
	10	(untitled)	Single	1, 2, 4, 3, 5	115, 45, 70, 95, 107

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		5	5	5	5
	B	5		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	115	118	3	1	3
	2	✓	4	D	123	17	24	1	3
	3	✓	2	B	22	82	60	1	3
	4	✓	3	C	87	100	13	1	3
	5	✓	5	E	105	110	5	1	5

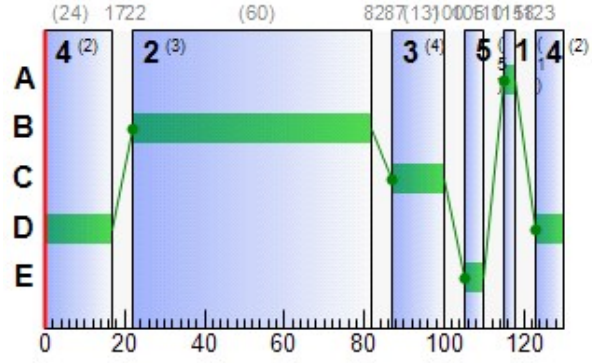
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	115	118	3
	B	1	✓	22	82	60
	C	1	✓	87	100	13
	D	1	✓	123	17	24
	E	1	✓	105	110	5

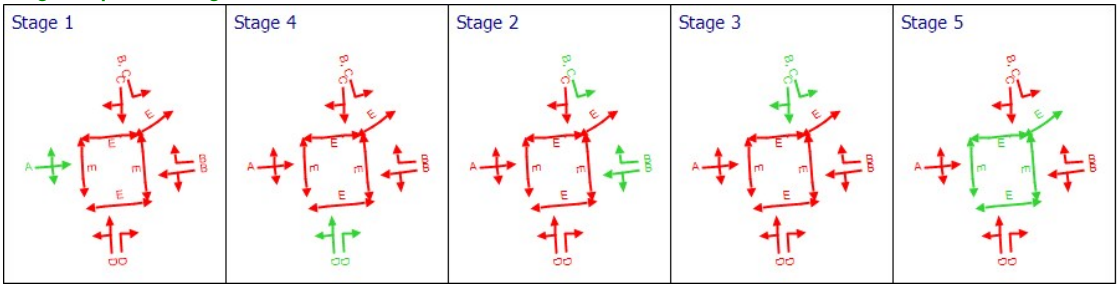
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	B	22	82	60
A	2	1	1	B	22	82	60
B	1	1	1	D	123	17	24
B	2	1	1	D	123	17	24
C	1	1	1	A	115	118	3
D	1	1	1	C	87	100	13
D-1	1	1	1	B	22	82	60

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	17	479	146	1800	60	20.38	3.06	58.64	11.73	1.04	12.77
		2	90	11	763	1800	60	49.66	29.01	556.01	149.45	9.87	159.32
	Ax	1	0	Unrestricted	1091	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	84	19	290	1800	24	74.97	12.04	173.03	85.76	4.10	89.86
		2	80	25	276	1800	24	69.30	10.90	156.73	75.44	3.74	79.18
	Bx	1	0	Unrestricted	284	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	78	29	43	1800	3	149.98	2.58	13.51	25.44	0.84	26.28
	Cx	1	0	Unrestricted	67	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	82	23	158	1800	13	92.85	7.16	58.80	57.87	2.43	60.29
	Dx	1	0	Unrestricted	1031	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	44	126	797	3120	73	0.79	0.18	1.44	2.49	0.00	2.49

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Flow on red per cycle (Veh)	Actual green (s (per cycle))
17:00-18:00	A	1	146	146	0		1800	845	17		479	0.00	0.0	60
		2	763	763	0		1800	845	90		11	0.00	0.0	60
	Ax	1	1091	1091	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	0.0	130
	B	1	290	290	0		1800	346	84		19	0.00	0.0	24
		2	276	276	0		1800	346	80		25	0.00	0.0	24
	Bx	1	284	284	0		Unrestricted	Unrestricted	0		Unrestricted	0.91	0.0	130
	C	1	43	43	0		1800	55	78		29	0.00	0.0	3
	Cx	1	67	67	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	0.0	130
	D	1	158	158	0		1800	194	82		23	0.00	0.0	13
	Dx	1	1031	1031	0		Unrestricted	Unrestricted	0		Unrestricted	0.62	0.0	130
	D-1	1	797	797	0		3120	1800	44		126	0.00	12.2	73

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	3.60	20.38	0.81	0.02	11.73	56.78	82.40	0.50	1.04
		2	3.60	49.66	6.74	3.79	149.45	103.20	686.02	101.37	9.87
	Ax	1	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	4.80	74.97	4.07	1.97	85.76	112.74	274.95	52.00	4.10
		2	4.80	69.30	3.84	1.47	75.44	107.95	258.62	39.33	3.74
	Bx	1	16.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.20	149.98	0.75	1.04	25.44	155.30	42.23	24.55	0.84
	Cx	1	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	8.40	92.85	2.49	1.58	57.87	122.46	152.50	40.98	2.43
	Dx	1	16.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D-1	1	8.40	0.79	0.00	0.18	2.49	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	3.06	5.22	58.64	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	29.01	5.22	556.01	10.36	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	27.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	12.04	6.96	173.03	1.25	0.00	0.00	0.00	0.00	0.00	
		2	0.00	10.90	6.96	156.73	0.80	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	24.57	0.00	0.00	0.00	0.00	26.00	0.00	26.00	
	C	1	0.00	2.58	19.13	13.51	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.31	0.00	0.00	0.00	0.00	78.00	0.00	78.00	
	D	1	0.00	7.16	12.17	58.80	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	23.95	0.00	0.00	0.00	0.00	21.00	0.00	21.00	
	D-1	1	0.00	0.18	12.17	1.44	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.38	0.97	4.50	23.98
		2	22.89	11.29	2.03	53.26
	Ax	1	175.21	5.84	30.00	19.27
	B	1	11.60	6.43	1.81	79.77
		2	11.04	5.68	1.94	74.10
	Bx	1	40.12	1.34	30.00	16.95
	C	1	4.73	1.95	2.43	163.18
	Cx	1	9.36	0.31	30.00	16.77
	D	1	11.06	4.44	2.49	101.25
	Dx	1	141.97	4.73	30.00	16.52
	D-1	1	55.79	2.04	27.41	9.19

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	3.06	0.02	2.82	1.00	0.00	12.77
		2	0.00	0.00	✓	29.21	3.98	18.61	1.00	0.00	159.32
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	12.13	2.06	10.52	1.00	0.00	89.86
		2	0.00	0.00	✓	10.95	1.52	9.57	1.00	0.00	79.18
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	2.71	1.17	2.67	1.00	0.00	26.28
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	7.25	1.68	6.77	1.00	0.00	60.29
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D-1	1	0.00	0.00	✓	0.18	0.18	0.18	1.00	0.00	2.49

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	19.18	0.28	3.78	3.78
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	4	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	19.18	0.28	3.78	3.78
	5	1	24	100	11000	5	60.70	3.47	23.94	23.94
		2	24	100	11000	5	123.08	3.61	48.55	48.55

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	2	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	0.00	5
	3	1	50	50	0		11000	423	12		746	1.92	5
		2	50	50	0		11000	423	12		746	0.00	5
	4	1	50	50	0		11000	423	12		746	0.00	5
		2	50	50	0		11000	423	12		746	1.92	5
	5	1	100	100	0		11000	423	24		323	0.00	5
		2	100	100	0		11000	423	24		323	1.92	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.67	60.58	0.84	0.00	11.95
		2	5.67	60.58	0.84	0.00	11.95
	2	1	6.33	60.58	0.84	0.00	11.95
		2	6.33	60.58	0.84	0.00	11.95
	3	1	7.33	19.18	0.27	0.00	3.78
		2	6.33	60.58	0.84	0.00	11.95
	4	1	5.67	60.58	0.84	0.00	11.95
		2	6.67	19.18	0.27	0.00	3.78
	5	1	3.00	60.70	1.69	0.00	23.94
		2	4.00	123.08	3.42	0.00	48.55

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	0.28	10.00	2.78	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	4	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	0.28	10.00	2.78	0.00	0.00	0.00
	5	1	3.47	10.00	34.72	0.00	0.00	0.00
		2	3.61	10.00	36.11	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.40	0.92	0.43	66.24
		2	0.40	0.92	0.43	66.24
	2	1	0.45	0.93	0.48	66.91
		2	0.45	0.93	0.48	66.91
	3	1	0.55	0.37	1.49	26.52
		2	0.45	0.93	0.48	66.91
	4	1	0.40	0.92	0.43	66.24
		2	0.50	0.36	1.39	25.85
	5	1	0.40	1.77	0.23	63.70
		2	0.60	3.53	0.17	127.08

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	2	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95
	3	1	0.00	0.00	0.28	1.00	0.00	3.78
		2	0.00	0.00	1.74	1.00	0.00	11.95
	4	1	0.00	0.00	1.74	1.00	0.00	11.95
		2	0.00	0.00	0.28	1.00	0.00	3.78
	5	1	0.00	0.00	3.47	1.00	0.00	23.94
		2	0.00	0.00	3.61	1.00	0.00	48.55

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
11	25/03/2022 08:14:41	25/03/2022 08:14:43	17:00	130	581.93	39.43	90.34	A/2	0	0	A/2	Dx/1	A/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	90	0	4946	777	20.92	408.18	22.01	430.19

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	24	600	50	64.12	151.74	151.74

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	5546	5546	0		90		11	827

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	11.14	25.60	29.38	10.05	559.92	31.65	1496.71	258.72	22.01

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	556.01	0.00	125.00	0.00	125.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	492.75	56.59	8.71

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	581.93

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	179.7	182.4	180.1	0.0	0.0	0.0	0.0
	2	118.0	0.0	28.5	118.2	0.0	0.0	0.0	0.0
	3	40.7	69.8	0.0	40.9	0.0	0.0	0.0	0.0
	4	96.5	96.3	93.4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	66.2	194.0	0.0
	6	0.0	0.0	0.0	0.0	66.2	0.0	0.0	66.9
	7	0.0	0.0	0.0	0.0	90.2	0.0	0.0	89.6
	8	0.0	0.0	0.0	0.0	0.0	66.9	193.3	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
1	1	2	7		179.70		7	179.70
2	1	3	18		182.45		18	182.45
3	1	4	18		180.13		18	180.13
9	3	4	120		40.93		120	40.93
11	4	2	261		96.29		261	96.29
13	4	1	29		96.54		29	96.54
16	3	2	763		69.78		763	69.78
17	8	5		0		92.76	0	0.00
18	8	6		50		66.91	50	66.91
20	4	3	276		93.37		276	93.37
21	7	5		50		90.22	50	90.22
22	7	8		50		89.55	50	89.55
23	5	6		50		66.24	50	66.24
34	6	8		50		66.91	50	66.91
35	6	5		50		66.24	50	66.24
45	3	1	26		40.75		26	40.75
46	5	8		0		92.76	0	0.00
47	8	7		50		193.32	50	193.32
48	5	7		50		193.99	50	193.99
49	2	4	146		118.20		146	118.20
50	2	1	12		118.02		12	118.02
51	2	3	797		28.47		797	28.47

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
A	1	(untitled)	1	1	B		146	1800	60	0.00	17	479	23.98	20.38	56.78
	2	(untitled)	1	1	B		763 <	1800	60	0.00	90	11	53.26	49.66	103.20
Ax	1	(untitled)					1091	Unrestricted	130	0.00	0	Unrestricted	19.27	0.00	0.00
B	1	(untitled)	1	1	D		290 <	1800	24	0.00	84	19	79.77	74.97	112.74
	2	(untitled)	1	1	D		276 <	1800	24	0.00	80	25	74.10	69.30	107.95
Bx	1	(untitled)					284	Unrestricted	130	26.00	0	Unrestricted	16.95	0.00	0.00
C	1	(untitled)	1	1	A		43	1800	3	0.00	78	29	163.18	149.98	155.30
Cx	1	(untitled)					67	Unrestricted	130	78.00	0	Unrestricted	16.77	0.00	0.00
D	1	(untitled)	1	1	C		158	1800	13	0.00	82	23	101.25	92.85	122.46
Dx	1	(untitled)					1031	Unrestricted	130	21.00	0	Unrestricted	16.52	0.00	0.00
D-1	1	(untitled)	1	1	B	C	797	3120	73	0.00	44	126	9.19	0.79	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
2	1	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
3	1	(untitled)	1	1	E	50	11000	5	12	746	26.52	19.18	0.28	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	66.91	60.58	1.74	100	
4	1	(untitled)	1	1	E	50	11000	5	12	746	66.24	60.58	1.74	100	
	2	(untitled)	1	1	E	50	11000	5	12	746	25.85	19.18	0.28	100	
5	1	(untitled)		1	E	100	11000	5	24	323	63.70	60.70	3.47	100	
	2	(untitled)		1	E	100	11000	5	24	323	127.08	123.08	3.61	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	488.15	45.02	10.84	18.69	10.05	408.18	22.01	0.00	430.19
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	4.60	11.57	0.40	10.69	0.00	151.74	0.00	0.00	151.74
TOTAL	492.75	56.59	8.71	29.38	10.05	559.92	22.01	0.00	581.93

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 15

Version: 15.5.2.7994

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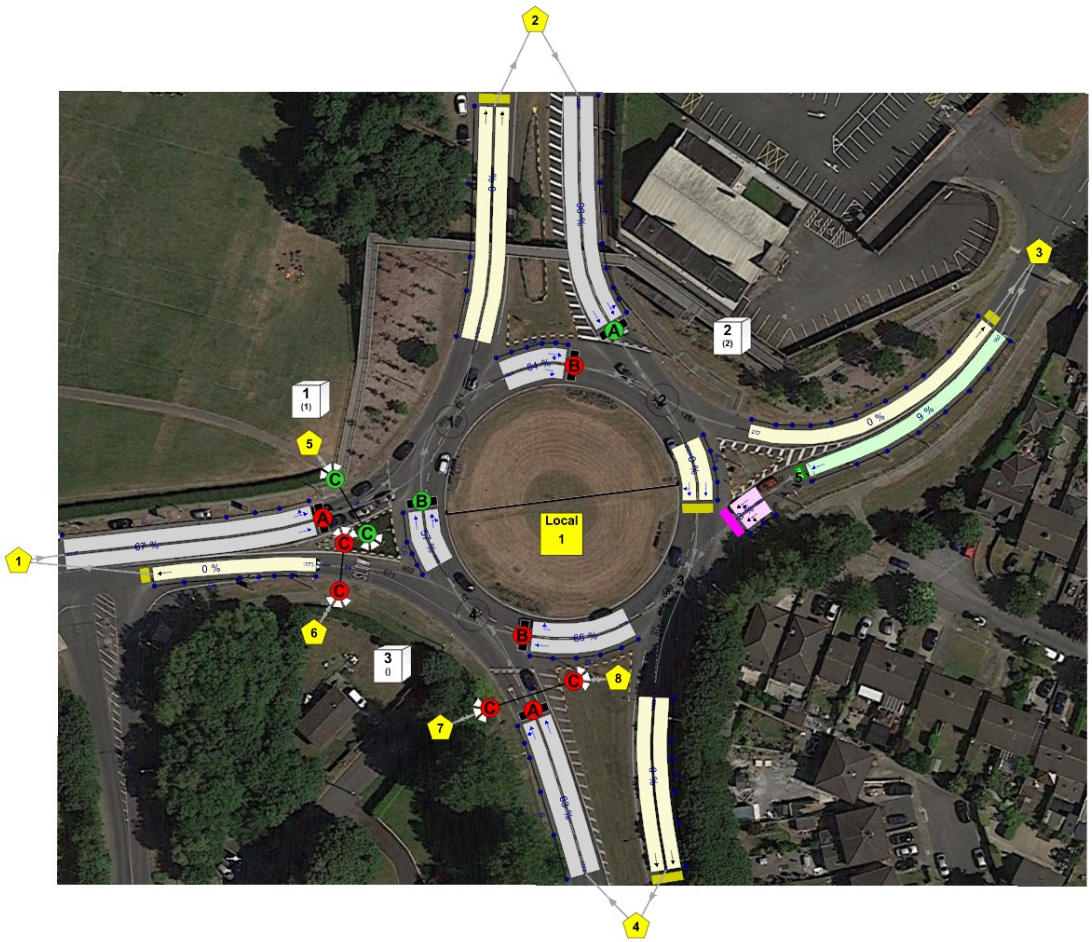
Filename: Junction 5 - AM.t16
Path: M:\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 5
Report generation date: 25/03/2022 08:22:24

Network Diagrams



(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
10, 10
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2023 DO NOTHING
D1 - 2023 DO NOTHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	19800	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			18000
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	138	138
Ac	1	2310	2310
Ax	1	221	221
B	1	1091	1091
Bc	1	607	607
Bx	1	1841	1841
C	1	1062	1062
Cc	1	628	628
Cx	1	1070	1070
D	1	1799	1799
Dc	1	732	732
Dx	1	958	958
13	1	138	138

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	369	81	612	0	0	0	0
	2	492	0	117	1190	0	0	0	0
	3	73	42	0	23	0	0	0	0
	4	505	547	23	16	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	369
	8		1	3	C/1, Dc/1, Ax/1	Normal	81
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	73
	17		3	4	13/1, A/1, Bx/1	Normal	23
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	23
	25		4	2	B/1, Cc/1, Dx/1	Normal	547
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	492
	31		2	3	D/1, Ax/1	Normal	117
	137		4	1	B/1, Cx/1	Normal	505
	140		2	4	D/1, Ac/1, Bx/1	Normal	1190
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	42
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	612
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	16

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	52, 20

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

	To		
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

	To		
From		1	2
	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	27	52	25	1	7
	2	✓	2	A	57	20	63	1	7

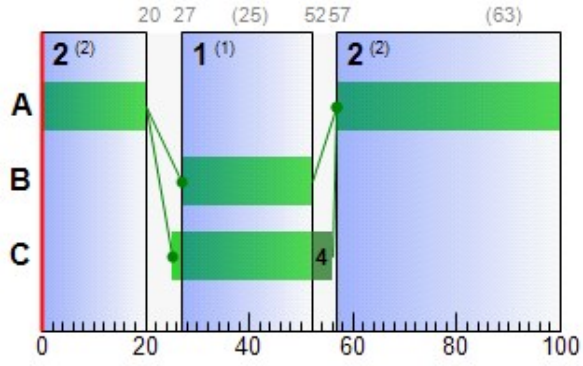
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	57	20	63
	B	1	✓	27	52	25
	C	1	✓	25	56	31

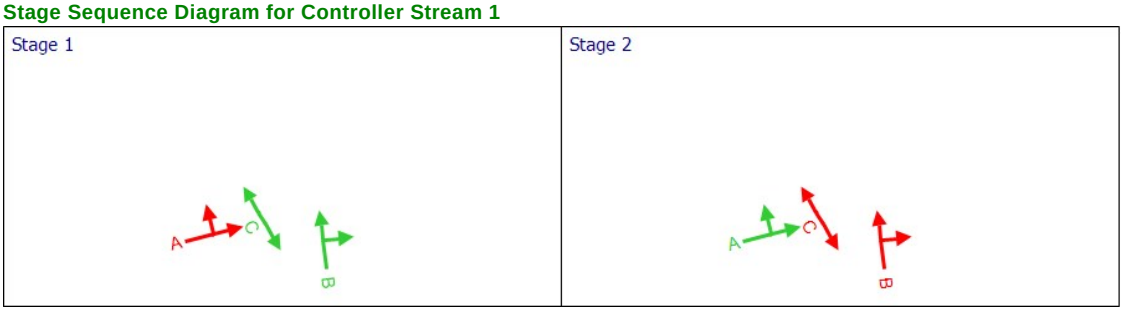
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	57	20	63
Cc	1	1	1	B	27	52	25

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	30, 3

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	8	30	22	1	7
	2	✓	2	A	35	3	48	1	7

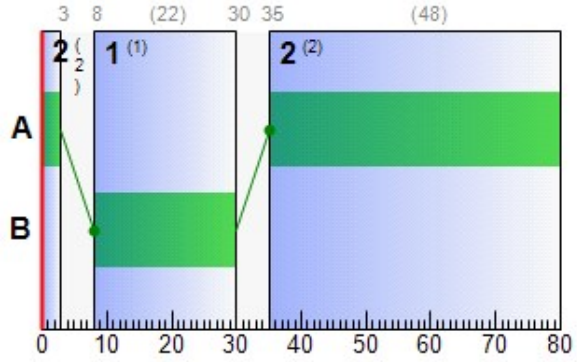
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	35	3	48
	B	1	✓	8	30	22

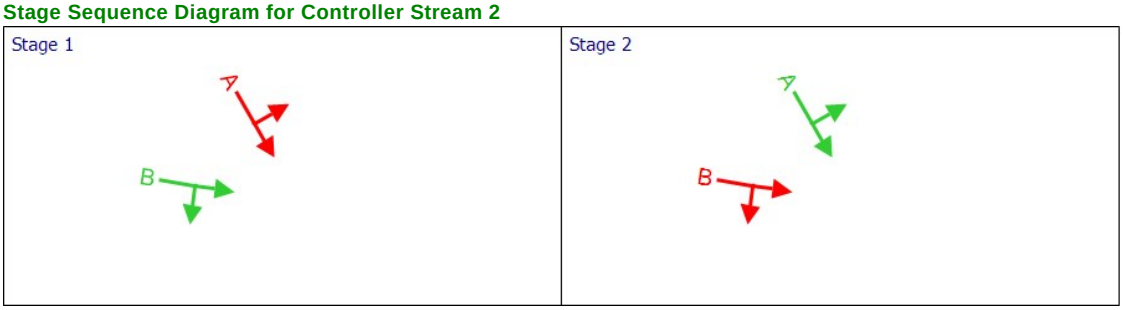
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	35	3	48
Dc	1	2	2	B	8	30	22

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	44, 122, 8

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	9	44	35	1	7
	2	✓	2	A	49	122	73	1	7
	3	✓	3	C	3	8	5	1	5

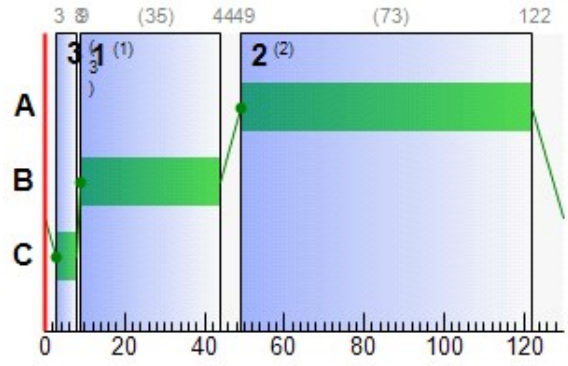
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	49	122	73
	B	1	✓	9	44	35
	C	1	✓	3	8	5

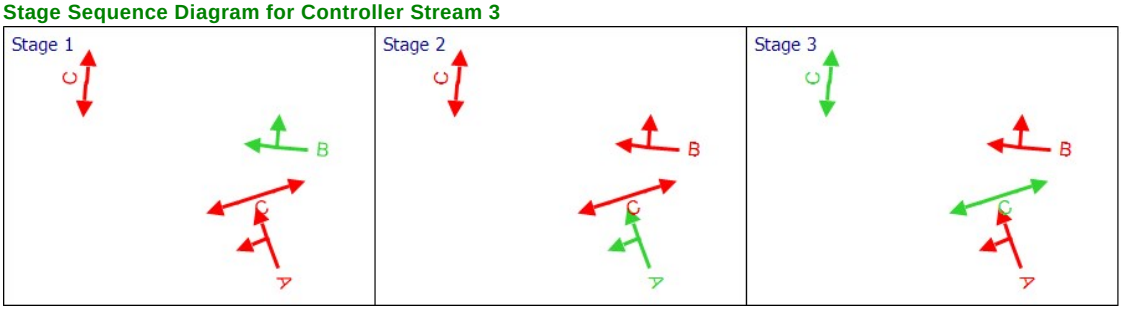
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	49	122	73
Bc	1	4	3	B	9	44	35

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3813	138	5400	80	0.01	0.00	0.01	0.00	0.00	0.00
	Ac	1	0	Unrestricted	2310	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	221	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	53	88	1091	3600	73	18.31	24.55	70.57	78.78	8.31	87.09
	Bc	1	61	64	607	3600	35	43.86	4.64	92.87	105.01	1.61	112.99
	Bx	1	0	Unrestricted	1841	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	46	117	1062	3600	63	9.86	15.24	83.42	41.30	6.56	47.86
	Cc	1	12	720	628	19800	25	32.52	2.79	55.73	80.56	1.26	81.82
	Cx	1	0	Unrestricted	1070	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	82	23	1799	3600	48	15.58	16.28	96.65	110.54	9.17	119.71
	Dc	1	71	41	732	3600	22	29.87	5.03	100.60	86.25	2.83	102.53
	Dx	1	0	Unrestricted	958	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	8	1204	138	1800	80	0.08	0.00	0.04	0.05	0.00	0.05

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	138	138	0		5400	5400	3		3813	0.00	80	80
	Ac	1	2310	2310	0		Unrestricted	Unrestricted	0		Unrestricted	0.47	80	80
	Ax	1	221	221	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	80	80
	B	1	1091	1091	0		3600	2049	53		88	0.00	73	74
	Bc	1	607	607	0		3600	997	61		64	1.13	35	36
	Bx	1	1841	1841	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	80	80
	C	1	1062	1062	0		3600	2304	46		117	0.00	63	64
	Cc	1	628	628	0		19800	5148	12		720	1.20	25	26
	Cx	1	1070	1070	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	130	13
	D	1	1799	1799	0		3600	2205	82		23	0.36	48	49
	Dc	1	732	732	0		3600	1035	71		41	1.01	22	23
	Dx	1	958	958	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	100	10
	13	1	138	138	0		1800	1800	8		1204	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	18.31	5.25	0.30	78.78	78.78	60.77	654.69	8.36	8.31	8.31
	Bc	1	2.40	43.86	6.89	0.50	105.01	105.01	21.17	115.38	13.13	1.61	1.61
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	9.86	2.71	0.20	41.30	41.30	49.24	515.90	7.08	6.56	6.56
	Cc	1	1.80	32.52	5.66	0.01	80.56	80.56	15.97	100.00	0.31	1.26	1.26
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	15.58	6.00	1.78	110.54	110.54	40.67	652.16	79.42	9.17	9.17
	Dc	1	2.40	29.87	5.18	0.89	86.25	86.25	30.85	187.50	38.33	2.83	2.83
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.08	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			3.00	0.00	3.00	
	B	1	0.00	24.55	34.78	70.57	0.00	0.00	0.00	0.30	17.27	0.00	0.00	0.00	
	Bc	1	5.00	4.64	5.00	92.87	0.00	0.13	6.37	0.48	16.66	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	15.24	18.27	83.42	0.00	0.00	0.00	0.20	10.82	0.00	0.00	0.00	
	Cc	1	5.00	2.79	5.00	55.73	0.00	0.00	0.00	0.01	13.09	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	16.28	16.84	96.65	0.00	0.00	0.00	1.78	19.77	0.00	0.00	0.00	
	Dc	1	5.00	5.03	5.00	100.60	0.00	0.27	13.45	0.86	12.86	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.04	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.42	0.08	29.88	2.12
	Ac	1	34.65	1.16	30.00	1.80
	Ax	1	22.10	0.74	30.00	12.00
	B	1	109.10	9.18	11.88	30.31
	Bc	1	12.14	7.77	1.56	46.10
	Bx	1	184.10	6.14	30.00	12.00
	C	1	55.79	4.77	11.70	16.16
	Cc	1	9.42	5.98	1.57	34.31
	Cx	1	109.50	3.65	30.00	12.28
	D	1	87.11	10.69	8.15	21.39
	Dc	1	14.64	6.54	2.24	32.14
	Dx	1	95.80	3.19	30.00	12.00
	13	1	6.95	0.23	29.59	6.13

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	24.55	0.30	17.27	1.00	0.00	87.09	87.09
	Bc	1	0.00	0.00	✓	4.64	0.48	16.66	1.00	6.37	106.62	112.99
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	15.24	0.20	10.82	1.00	0.00	47.86	47.86
	Cc	1	0.00	0.00	✓	2.79	0.01	13.09	1.00	0.00	81.82	81.82
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	16.29	1.80	19.78	1.00	0.00	119.71	119.71
	Dc	1	0.00	0.00	✓	5.03	0.86	12.86	1.00	13.45	89.08	102.53
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.05	0.05

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	31	24.15	0.96	4.76	4.76
		2	1	50	11000	31	24.15	0.96	4.76	4.76
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	3410	1		6720	0.00	31	31
		2	50	50	0		11000	3410	1		6720	0.00	31	31
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	24.15	0.34	0.00	4.76	4.76
		2	5.00	24.15	0.34	0.00	4.76	4.76
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.96	10.00	9.58	0.00	0.00	0.00
		2	0.96	10.00	9.58	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.38	0.53	27.15
		2	0.30	0.40	0.74	29.15
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.96	1.00	0.00	4.76	4.76
		2	0.00	0.00	0.96	1.00	0.00	4.76	4.76
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	25/03/2022 08:19:48	25/03/2022 08:20:01	08:00	120	609.38	39.42	81.59	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	82	0	12595	896	10.11	502.50	29.74	552.06

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	82	48.43	57.31	57.31

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	12895	12895	0		82		23	978	984

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.01	11.01	35.73	3.69	559.81	559.81	18.40	2225.64	146.63	29.74	29.74

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	100.60	19.82	19.00	0.00	19.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	745.12	64.46	11.56

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	19.82	0.00	589.56	609.38

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	28.2	60.3	62.1	0.0	0.0	0.0	0.0
	2	81.6	0.0	33.4	35.2	0.0	0.0	0.0	0.0
	3	66.6	100.7	0.0	20.2	0.0	0.0	0.0	0.0
	4	42.6	76.6	108.8	110.6	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	92.7	0.0	0.0
	6	0.0	0.0	0.0	0.0	92.7	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	369		28.16		369	28.16
8	1	3	81		60.30		81	60.30
16	3	1	73		66.63		73	66.63
17	3	4	23		20.24		23	20.24
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	23		108.76		23	108.76
25	4	2	547		76.61		547	76.61
26	2	1	492		81.57		492	81.57
31	2	3	117		33.39		117	33.39
32	6	5		50		92.73	50	92.73
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		92.73	50	92.73
137	4	1	505		42.59		505	42.59
140	2	4	1190		35.19		1190	35.19
141	3	2	42		100.65		42	100.65
142	1	4	612		62.10		612	62.10
143	4	4	16		110.56		16	110.56

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			138	5400	80	0.00	3	3813	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2310	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				221	Unrestricted	80	3.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1091	3600	73	0.00	53	88	30.31	18.31	60.77	24.55	17.
Bc	1	(untitled)	4	3	B	607	3600	35	0.00	61	64	46.10	43.86	21.17	4.64	16.
Bx	1	(untitled)				1841	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1062	3600	63	0.00	46	117	16.16	9.86	49.24	15.24	10.
Cc	1	(untitled)	1	1	B	628	19800	25	0.00	12	720	34.31	32.52	15.97	2.79	13.
Cx	1	(untitled)				1070	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1799	3600	48	0.00	82	23	21.39	15.58	40.67	16.28	19.
Dc	1	(untitled)	2	2	B	732 <	3600	22	0.00	71	41	32.14	29.87	30.85	5.03 +	12.
Dx	1	(untitled)				958	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			138	1800	80	0.00	8	1204	6.13	0.08	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	31	1	6720	27.15	24.15	0.96	100	0
	2	(untitled)		1	C	50	11000	31	1	6720	29.15	24.15	0.96	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	743.72	60.12	12.37	31.70	3.69	502.50	29.74	19.82	552.06
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.34	0.32	4.04	0.00	57.31	0.00	0.00	57.31
TOTAL	745.12	64.46	11.56	35.73	3.69	559.81	29.74	19.82	609.38

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO SOMETHING
D2 - 2023 DO SOMETHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	138	138
Ac	1	2338	2338
Ax	1	224	224
B	1	1100	1100
Bc	1	615	615
Bx	1	1861	1861
C	1	1097	1097
Cc	1	628	628
Cx	1	1087	1087
D	1	1807	1807
Dc	1	755	755
Dx	1	970	970
13	1	138	138

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	381	84	632	0	0	0	0
	2	500	0	117	1190	0	0	0	0
	3	73	42	0	23	0	0	0	0
	4	514	547	23	16	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	381
	8		1	3	C/1, Dc/1, Ax/1	Normal	84
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	73
	17		3	4	13/1, A/1, Bx/1	Normal	23
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	23
	25		4	2	B/1, Cc/1, Dx/1	Normal	547
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	500
	31		2	3	D/1, Ax/1	Normal	117
	137		4	1	B/1, Cx/1	Normal	514
	140		2	4	D/1, Ac/1, Bx/1	Normal	1190
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	42
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	632
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	16

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	36, 95

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	2	36	34	1	7
	2	✓	2	A	41	95	54	1	7

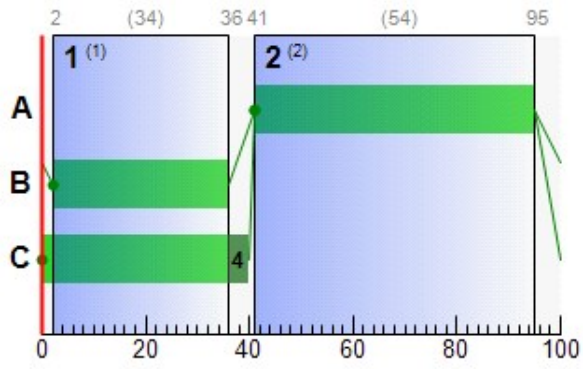
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	41	95	54
	B	1	✓	2	36	34
	C	1	✓	0	40	40

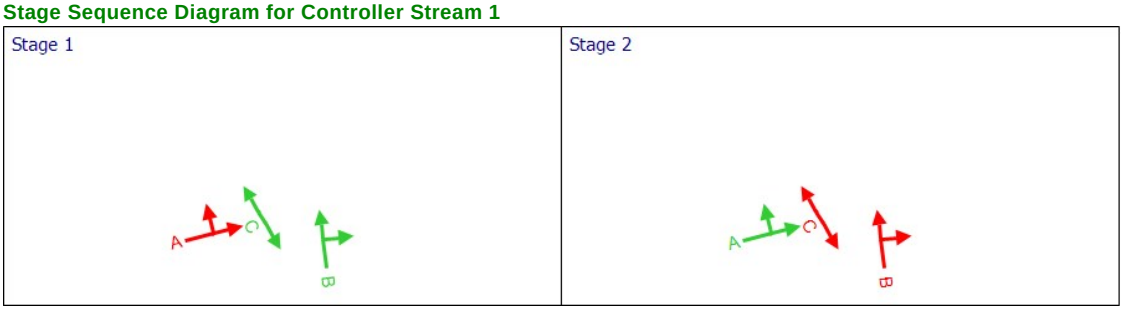
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	41	95	54
Cc	1	1	1	B	2	36	34

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	65, 38

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	43	65	22	1	7
	2	✓	2	A	70	38	48	1	7

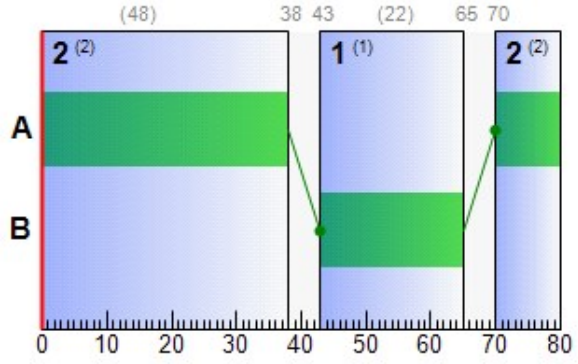
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	70	38	48
	B	1	✓	43	65	22

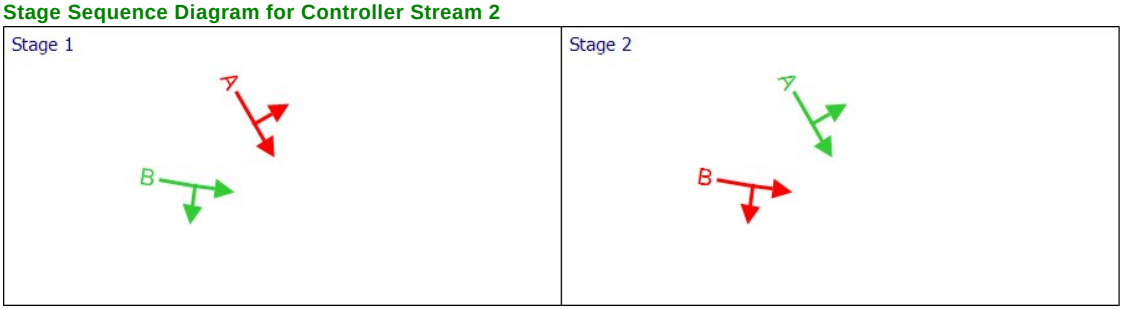
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	70	38	48
Dc	1	2	2	B	43	65	22

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	44, 121, 7

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	8	44	36	1	7
	2	✓	2	A	49	121	72	1	7
	3	✓	3	C	2	7	5	1	5

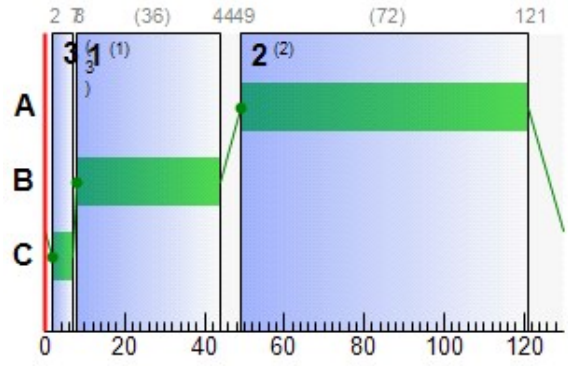
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	49	121	72
	B	1	✓	8	44	36
	C	1	✓	2	7	5

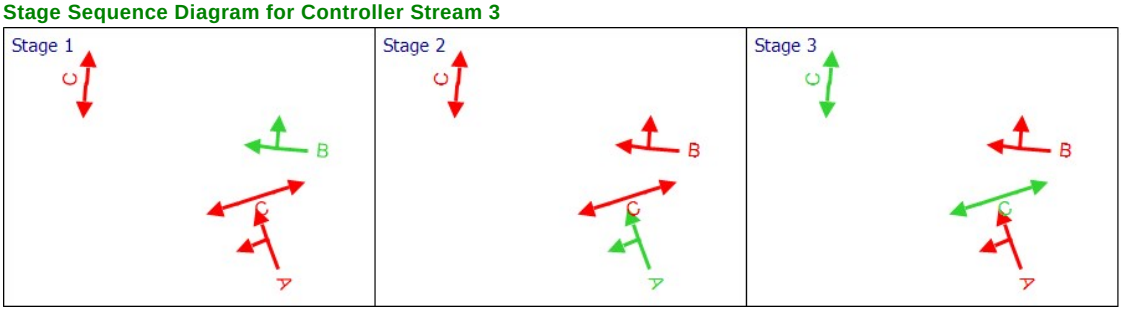
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	49	121	72
Bc	1	4	3	B	8	44	36

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3813	138	5400	80	0.01	0.00	0.01	0.00	0.00	0.00
	Ac	1	0	Unrestricted	2338	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	224	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	54	84	1100	3600	72	19.06	25.38	72.97	82.68	8.55	91.24
	Bc	1	60	67	615	3600	36	42.92	4.62	92.39	104.11	1.60	110.87
	Bx	1	0	Unrestricted	1861	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	55	80	1097	3600	54	15.69	19.85	108.61	67.90	8.73	76.63
	Cc	1	50	101	628	3600	34	27.12	3.03	60.52	67.18	1.37	69.32
	Cx	1	0	Unrestricted	1087	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	82	22	1807	3600	48	15.72	16.33	96.95	112.03	9.20	121.23
	Dc	1	73	37	755	3600	22	30.57	5.16	103.25	91.05	2.90	111.31
	Dx	1	0	Unrestricted	970	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	8	1204	138	1800	80	0.08	0.00	0.04	0.05	0.00	0.05

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	138	138	0		5400	5400	3		3813	0.00	80	80
	Ac	1	2338	2338	0		Unrestricted	Unrestricted	0		Unrestricted	0.46	80	80
	Ax	1	224	224	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	80	80
	B	1	1100	1100	0		3600	2022	54		84	0.00	72	73
	Bc	1	615	615	0		3600	1025	60		67	1.12	36	37
	Bx	1	1861	1861	0		Unrestricted	Unrestricted	0		Unrestricted	0.33	80	80
	C	1	1097	1097	0		3600	1980	55		80	0.00	54	55
	Cc	1	628	628	0		3600	1260	50		101	1.02	34	35
	Cx	1	1087	1087	0		Unrestricted	Unrestricted	0		Unrestricted	0.68	130	13
	D	1	1807	1807	0		3600	2205	82		22	0.36	48	49
	Dc	1	755	755	0		3600	1035	73		37	1.03	22	23
	Dx	1	970	970	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	100	10
	13	1	138	138	0		1800	1800	8		1204	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	19.06	5.50	0.32	82.68	82.68	62.02	673.30	8.96	8.55	8.55
	Bc	1	2.40	42.92	6.85	0.48	104.11	104.11	20.79	115.38	12.48	1.60	1.60
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	15.69	4.44	0.34	67.90	67.90	63.43	683.53	12.33	8.73	8.73
	Cc	1	1.80	27.12	4.46	0.27	67.18	67.18	17.34	100.00	8.90	1.37	1.37
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	15.72	6.05	1.84	112.03	112.03	40.61	652.17	81.68	9.20	9.20
	Dc	1	2.40	30.57	5.39	1.02	91.05	91.05	30.68	187.50	44.15	2.90	2.90
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.08	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			3.00	0.00	3.00	
	B	1	0.00	25.38	34.78	72.97	0.00	0.00	0.00	0.32	17.74	0.00	0.00	0.00	
	Bc	1	5.00	4.62	5.00	92.39	0.00	0.10	5.15	0.45	16.68	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	19.85	18.27	108.61	0.05	0.00	0.00	0.34	14.06	0.00	0.00	0.00	
	Cc	1	5.00	3.03	5.00	60.52	0.00	0.02	0.78	0.25	11.76	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	16.33	16.84	96.95	0.00	0.00	0.00	1.84	19.90	0.00	0.00	0.00	
	Dc	1	5.00	5.16	5.00	103.25	0.01	0.35	17.36	1.00	13.37	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.04	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.42	0.08	29.88	2.12
	Ac	1	35.07	1.17	30.00	1.80
	Ax	1	22.40	0.75	30.00	12.00
	B	1	110.00	9.49	11.59	31.06
	Bc	1	12.30	7.72	1.59	45.17
	Bx	1	186.10	6.20	30.00	12.00
	C	1	57.63	6.70	8.60	22.00
	Cc	1	9.42	5.03	1.87	28.82
	Cx	1	111.23	3.71	30.00	12.28
	D	1	87.50	10.81	8.10	21.53
	Dc	1	15.10	6.89	2.19	32.85
	Dx	1	97.00	3.23	30.00	12.00
	13	1	6.95	0.23	29.59	6.13

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	25.38	0.32	17.74	1.00	0.00	91.24	91.24
	Bc	1	0.00	0.00	✓	4.62	0.45	16.68	1.00	5.15	105.72	110.87
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	19.85	0.34	14.06	1.00	0.00	76.63	76.63
	Cc	1	0.00	0.00	✓	3.03	0.25	11.76	1.00	0.78	68.54	69.32
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	16.34	1.85	19.92	1.00	0.00	121.23	121.23
	Dc	1	0.00	0.00	✓	5.16	0.99	13.36	1.00	17.36	93.95	111.31
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.05	0.05

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	40	18.30	0.83	3.61	3.61
		2	1	50	11000	40	18.30	0.83	3.61	3.61
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4400	1		8700	0.00	40	40
		2	50	50	0		11000	4400	1		8700	0.00	40	40
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	18.30	0.25	0.00	3.61	3.61
		2	5.00	18.30	0.25	0.00	3.61	3.61
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.83	10.00	8.33	0.00	0.00	0.00
		2	0.83	10.00	8.33	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.30	0.68	21.30
		2	0.30	0.32	0.93	23.30
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.83	1.00	0.00	3.61	3.61
		2	0.00	0.00	0.83	1.00	0.00	3.61	3.61
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	25/03/2022 08:20:02	25/03/2022 08:20:15	08:00	120	635.65	40.85	81.95	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	82	0	12758	896	10.43	525.00	32.35	580.64

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	100	46.48	55.01	55.01

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	13058	13058	0		82		22	996	1002

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.01	11.26	36.57	4.27	580.01	580.01	19.76	2411.88	168.49	32.35	32.35

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	108.61	23.29	19.00	0.00	19.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	754.52	66.19	11.40

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	23.29	0.00	612.36	635.65

Point to Point Journey Time

Average Journey Time (s) for Load Matrix 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	34.0	66.8	68.6	0.0	0.0	0.0	0.0
	2	80.8	0.0	33.5	35.3	0.0	0.0	0.0	0.0
	3	65.7	94.2	0.0	20.2	0.0	0.0	0.0	0.0
	4	43.3	71.9	104.7	106.5	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	86.9	0.0	0.0
	6	0.0	0.0	0.0	0.0	86.9	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	381		34.00		381	34.00
8	1	3	84		66.84		84	66.84
16	3	1	73		65.69		73	65.69
17	3	4	23		20.24		23	20.24
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	23		104.72		23	104.72
25	4	2	547		71.87		547	71.87
26	2	1	500		80.78		500	80.78
31	2	3	117		33.53		117	33.53
32	6	5		50		86.88	50	86.88
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		86.88	50	86.88
137	4	1	514		43.34		514	43.34
140	2	4	1190		35.33		1190	35.33
141	3	2	42		94.23		42	94.23
142	1	4	632		68.64		632	68.64
143	4	4	16		106.52		16	106.52

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			138	5400	80	0.00	3	3813	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2338	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				224	Unrestricted	80	3.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1100	3600	72	0.00	54	84	31.06	19.06	62.02	25.38	17.
Bc	1	(untitled)	4	3	B	615	3600	36	0.00	60	67	45.17	42.92	20.79	4.62	16.
Bx	1	(untitled)				1861	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1097 <	3600	54	0.00	55	80	22.00	15.69	63.43	19.85 +	14.
Cc	1	(untitled)	1	1	B	628	3600	34	0.00	50	101	28.82	27.12	17.34	3.03	11.
Cx	1	(untitled)				1087	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1807	3600	48	0.00	82	22	21.53	15.72	40.61	16.33	19.
Dc	1	(untitled)	2	2	B	755 <	3600	22	0.00	73	37	32.85	30.57	30.68	5.16 +	13.
Dx	1	(untitled)				970	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			138	1800	80	0.00	8	1204	6.13	0.08	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	40	1	8700	21.30	18.30	0.83	100	0
	2	(untitled)		1	C	50	11000	40	1	8700	23.30	18.30	0.83	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	753.12	62.01	12.15	32.70	4.27	525.00	32.35	23.29	580.64
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.18	0.33	3.87	0.00	55.01	0.00	0.00	55.01
TOTAL	754.52	66.19	11.40	36.57	4.27	580.01	32.35	23.29	635.65

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2025 DO NOTHING
D3 - 2025 DO NOTHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	142	142
Ac	1	2386	2386
Ax	1	229	229
B	1	1128	1128
Bc	1	626	626
Bx	1	1902	1902
C	1	1097	1097
Cc	1	649	649
Cx	1	1105	1105
D	1	1858	1858
Dc	1	757	757
Dx	1	989	989
13	1	142	142

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	381	84	632	0	0	0	0
	2	508	0	121	1229	0	0	0	0
	3	75	43	0	24	0	0	0	0
	4	522	565	24	17	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	381
	8		1	3	C/1, Dc/1, Ax/1	Normal	84
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	75
	17		3	4	13/1, A/1, Bx/1	Normal	24
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	24
	25		4	2	B/1, Cc/1, Dx/1	Normal	565
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	508
	31		2	3	D/1, Ax/1	Normal	121
	137		4	1	B/1, Cx/1	Normal	522
	140		2	4	D/1, Ac/1, Bx/1	Normal	1229
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	43
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	632
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	17

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	36, 95

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

	To		
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

	To		
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	2	36	34	1	7
	2	✓	2	A	41	95	54	1	7

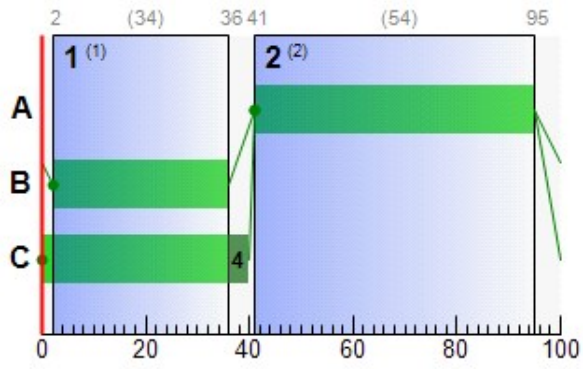
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	41	95	54
	B	1	✓	2	36	34
	C	1	✓	0	40	40

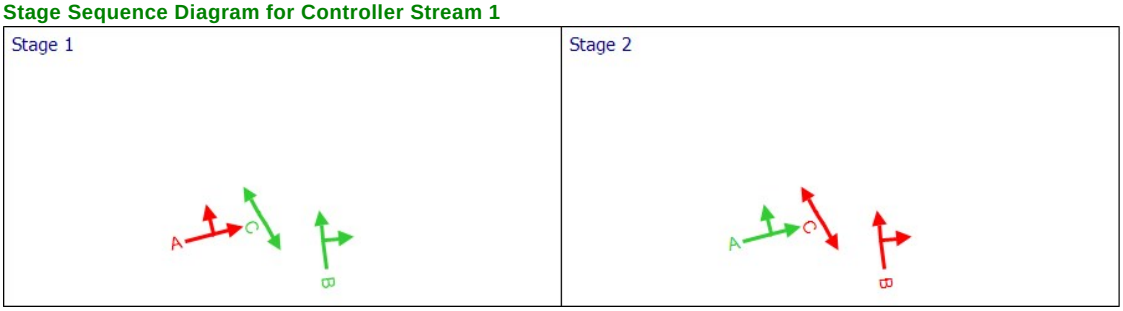
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	41	95	54
Cc	1	1	1	B	2	36	34

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	0, 53

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	58	0	22	1	7
	2	✓	2	A	5	53	48	1	7

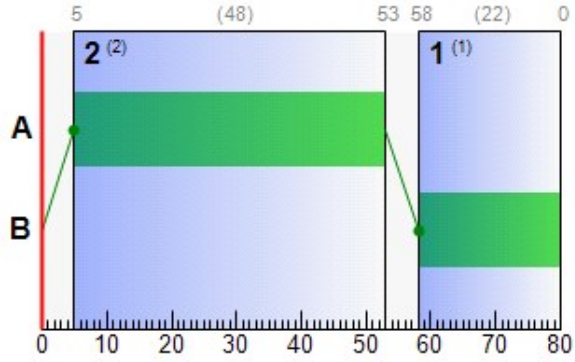
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	5	53	48
	B	1	✓	58	0	22

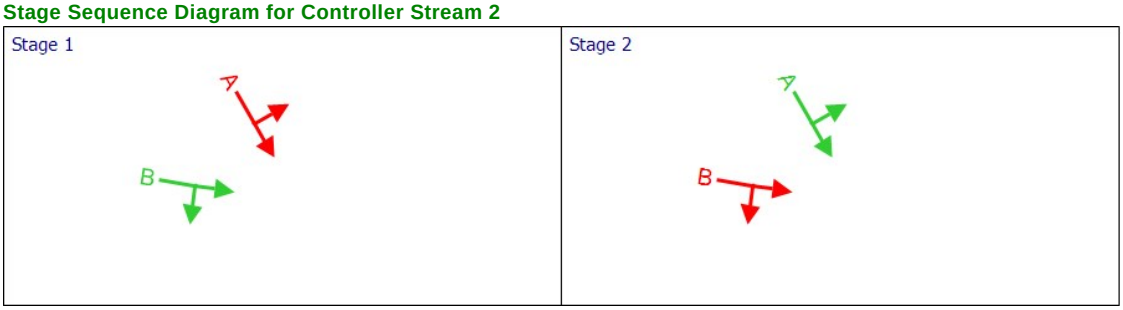
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	5	53	48
Dc	1	2	2	B	58	0	22

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	45, 122, 8

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	9	45	36	1	7
	2	✓	2	A	50	122	72	1	7
	3	✓	3	C	3	8	5	1	5

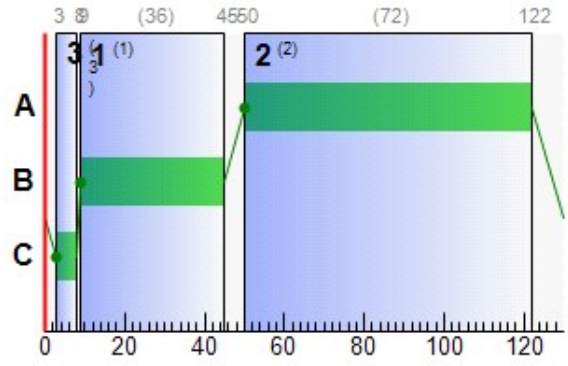
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	50	122	72
	B	1	✓	9	45	36
	C	1	✓	3	8	5

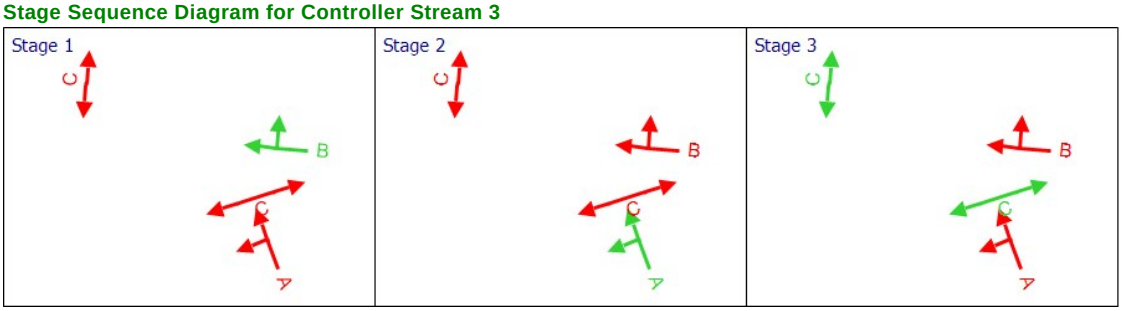
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	50	122	72
Bc	1	4	3	B	9	45	36

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3703	142	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2386	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	229	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	56	79	1128	3600	72	19.32	26.04	74.88	85.96	8.87	94.83
	Bc	1	61	64	626	3600	36	43.19	4.65	92.98	106.65	1.61	113.80
	Bx	1	0	Unrestricted	1902	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	55	80	1097	3600	54	15.69	19.85	108.61	67.90	8.73	76.63
	Cc	1	52	94	649	3600	34	27.40	3.05	61.04	70.14	1.38	73.14
	Cx	1	0	Unrestricted	1105	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	84	19	1858	3600	48	16.71	16.71	99.21	122.45	9.41	131.86
	Dc	1	73	37	757	3600	22	30.64	5.17	103.50	91.49	2.91	112.24
	Dx	1	0	Unrestricted	989	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	8	1168	142	1800	80	0.09	0.00	0.04	0.05	0.00	0.05

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	142	142	0		5400	5400	3		3703	0.00	80	80
	Ac	1	2386	2386	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	80	80
	Ax	1	229	229	0		Unrestricted	Unrestricted	0		Unrestricted	0.36	80	80
	B	1	1128	1128	0		3600	2022	56		79	0.00	72	73
	Bc	1	626	626	0		3600	1025	61		64	1.12	36	37
	Bx	1	1902	1902	0		Unrestricted	Unrestricted	0		Unrestricted	0.32	80	80
	C	1	1097	1097	0		3600	1980	55		80	0.00	54	55
	Cc	1	649	649	0		3600	1260	52		94	1.03	34	35
	Cx	1	1105	1105	0		Unrestricted	Unrestricted	0		Unrestricted	0.67	130	13
	D	1	1858	1858	0		3600	2205	84		19	0.38	48	49
	Dc	1	757	757	0		3600	1035	73		37	1.03	22	23
	Dx	1	989	989	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	100	10
	13	1	142	142	0		1800	1800	8		1168	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	19.32	5.70	0.35	85.96	85.96	62.73	697.92	9.71	8.87	8.87
	Bc	1	2.40	43.19	7.00	0.51	106.65	106.65	20.55	115.38	13.29	1.61	1.61
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	15.69	4.44	0.34	67.90	67.90	63.43	683.53	12.33	8.73	8.73
	Cc	1	1.80	27.40	4.65	0.29	70.14	70.14	16.92	100.00	9.84	1.38	1.38
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	16.71	6.41	2.22	122.45	122.45	40.40	652.17	98.43	9.41	9.41
	Dc	1	2.40	30.64	5.41	1.03	91.49	91.49	30.67	187.50	44.70	2.91	2.91
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.09	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			3.00	0.00	3.00	
	B	1	0.00	26.04	34.78	74.88	0.00	0.00	0.00	0.35	18.21	0.00	0.00	0.00	
	Bc	1	5.00	4.65	5.00	92.98	0.00	0.11	5.53	0.48	17.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	19.85	18.27	108.61	0.05	0.00	0.00	0.34	14.06	0.00	0.00	0.00	
	Cc	1	5.00	3.05	5.00	61.04	0.00	0.03	1.62	0.27	12.17	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	16.71	16.84	99.21	0.00	0.00	0.00	2.22	20.80	0.00	0.00	0.00	
	Dc	1	5.00	5.17	5.00	103.50	0.01	0.36	17.84	1.01	13.41	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.04	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.49	0.08	29.87	2.12
	Ac	1	35.79	1.19	30.00	1.80
	Ax	1	22.90	0.76	30.00	12.00
	B	1	112.80	9.81	11.49	31.32
	Bc	1	12.52	7.90	1.58	45.45
	Bx	1	190.20	6.34	30.00	12.00
	C	1	57.63	6.70	8.60	22.00
	Cc	1	9.74	5.25	1.86	29.10
	Cx	1	113.08	3.77	30.00	12.28
	D	1	89.97	11.62	7.74	22.52
	Dc	1	15.14	6.92	2.19	32.91
	Dx	1	98.90	3.30	30.00	12.00
	13	1	7.15	0.24	29.58	6.13

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	26.05	0.35	18.21	1.00	0.00	94.83	94.83
	Bc	1	0.00	0.00	✓	4.65	0.48	17.00	1.00	5.53	108.26	113.80
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	19.85	0.34	14.06	1.00	0.00	76.63	76.63
	Cc	1	0.00	0.00	✓	3.05	0.27	12.17	1.00	1.62	71.51	73.14
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	16.73	2.24	20.82	1.00	0.00	131.86	131.86
	Dc	1	0.00	0.00	✓	5.17	1.00	13.41	1.00	17.84	94.40	112.24
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.05	0.05

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	40	18.30	0.83	3.61	3.61
		2	1	50	11000	40	18.30	0.83	3.61	3.61
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4400	1		8700	0.00	40	40
		2	50	50	0		11000	4400	1		8700	0.00	40	40
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	18.30	0.25	0.00	3.61	3.61
		2	5.00	18.30	0.25	0.00	3.61	3.61
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.83	10.00	8.33	0.00	0.00	0.00
		2	0.83	10.00	8.33	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.30	0.68	21.30
		2	0.30	0.32	0.93	23.30
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.83	1.00	0.00	3.61	3.61
		2	0.00	0.00	0.83	1.00	0.00	3.61	3.61
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	25/03/2022 08:20:15	25/03/2022 08:20:28	08:00	120	657.55	42.23	84.26	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	84	0	13010	896	10.61	544.64	32.91	602.54

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	100	46.48	55.01	55.01

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	13310	13310	0		84		19	996	1002

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.01	11.42	37.48	4.75	599.64	599.64	19.72	2436.51	188.30	32.91	32.91

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	108.61	25.00	19.00	0.00	19.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	769.70	68.07	11.31

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	25.00	0.00	632.55	657.55

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	34.0	66.9	68.7	0.0	0.0	0.0	0.0
	2	82.0	0.0	34.5	36.3	0.0	0.0	0.0	0.0
	3	66.0	94.8	0.0	20.2	0.0	0.0	0.0	0.0
	4	43.6	72.4	105.3	107.1	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	86.9	0.0	0.0
	6	0.0	0.0	0.0	0.0	86.9	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	381		34.00		381	34.00
8	1	3	84		66.91		84	66.91
16	3	1	75		65.97		75	65.97
17	3	4	24		20.24		24	20.24
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	24		105.33		24	105.33
25	4	2	565		72.42		565	72.42
26	2	1	508		82.04		508	82.04
31	2	3	121		34.52		121	34.52
32	6	5		50		86.88	50	86.88
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		86.88	50	86.88
137	4	1	522		43.60		522	43.60
140	2	4	1229		36.32		1229	36.32
141	3	2	43		94.79		43	94.79
142	1	4	632		68.71		632	68.71
143	4	4	17		107.13		17	107.13

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			142	5400	80	0.00	3	3703	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2386	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				229	Unrestricted	80	3.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1128	3600	72	0.00	56	79	31.32	19.32	62.73	26.04	18.
Bc	1	(untitled)	4	3	B	626	3600	36	0.00	61	64	45.45	43.19	20.55	4.65	17.
Bx	1	(untitled)				1902	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1097 <	3600	54	0.00	55	80	22.00	15.69	63.43	19.85 +	14.
Cc	1	(untitled)	1	1	B	649	3600	34	0.00	52	94	29.10	27.40	16.92	3.05	12.
Cx	1	(untitled)				1105	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1858	3600	48	0.00	84	19	22.52	16.71	40.40	16.71	20.
Dc	1	(untitled)	2	2	B	757 <	3600	22	0.00	73	37	32.91	30.64	30.67	5.17 +	13.
Dx	1	(untitled)				989	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			142	1800	80	0.00	8	1168	6.13	0.09	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	40	1	8700	21.30	18.30	0.83	100	0
	2	(untitled)		1	C	50	11000	40	1	8700	23.30	18.30	0.83	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	768.30	63.89	12.02	33.60	4.75	544.64	32.91	25.00	602.54
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.18	0.33	3.87	0.00	55.01	0.00	0.00	55.01
TOTAL	769.70	68.07	11.31	37.48	4.75	599.64	32.91	25.00	657.55

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO SOMETHING
D4 - 2025 DO SOMETHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	143	143
Ac	1	2425	2425
Ax	1	233	233
B	1	1139	1139
Bc	1	638	638
Bx	1	1930	1930
C	1	1146	1146
Cc	1	649	649
Cx	1	1128	1128
D	1	1869	1869
Dc	1	789	789
Dx	1	1006	1006
13	1	143	143

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	398	88	660	0	0	0	0
	2	519	0	121	1229	0	0	0	0
	3	76	43	0	24	0	0	0	0
	4	533	565	24	17	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	398
	8		1	3	C/1, Dc/1, Ax/1	Normal	88
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	76
	17		3	4	13/1, A/1, Bx/1	Normal	24
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	24
	25		4	2	B/1, Cc/1, Dx/1	Normal	565
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	519
	31		2	3	D/1, Ax/1	Normal	121
	137		4	1	B/1, Cx/1	Normal	533
	140		2	4	D/1, Ac/1, Bx/1	Normal	1229
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	43
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	660
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	17

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	6, 65

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

	To		
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

	To		
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	72	6	34	1	7
	2	✓	2	A	11	65	54	1	7

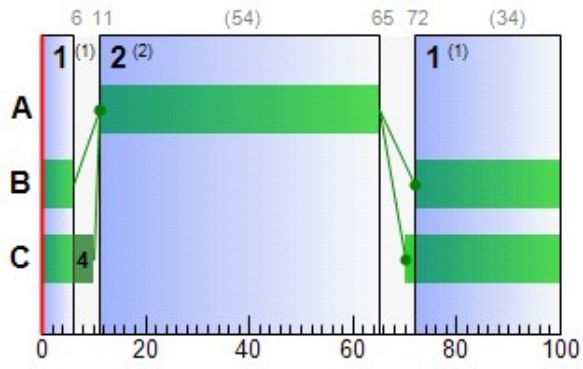
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	11	65	54
	B	1	✓	72	6	34
	C	1	✓	70	10	40

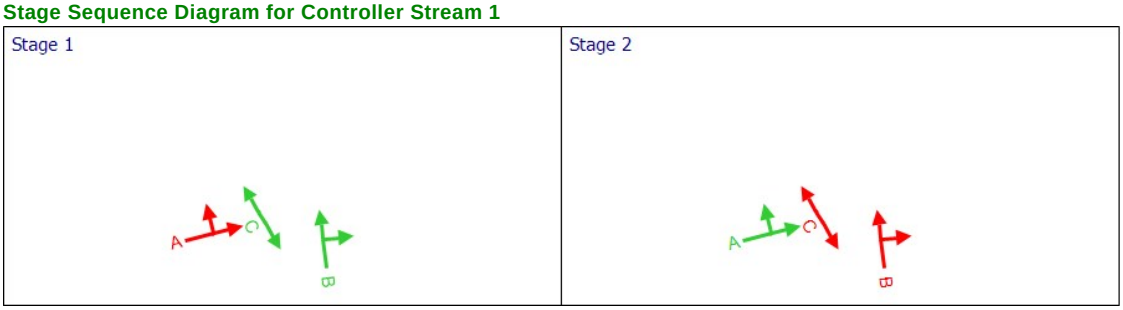
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	11	65	54
Cc	1	1	1	B	72	6	34

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	50, 22

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	27	50	23	1	7
	2	✓	2	A	55	22	47	1	7

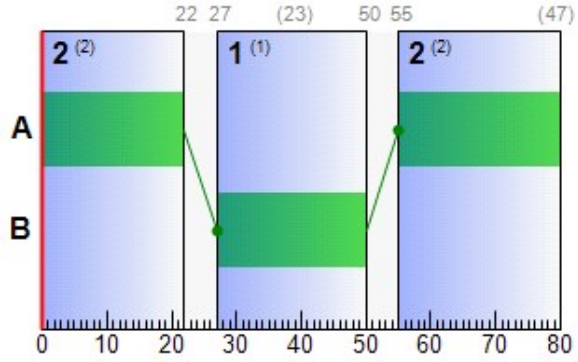
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	55	22	47
	B	1	✓	27	50	23

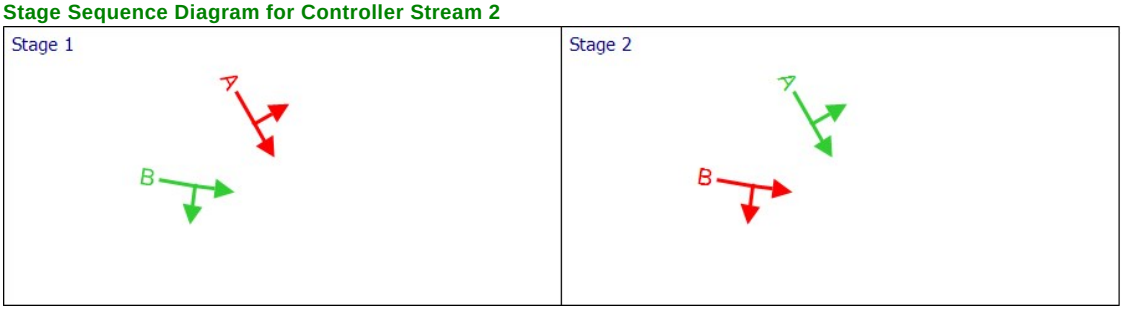
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	55	22	47
Dc	1	2	2	B	27	50	23

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	110, 57, 73

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	74	110	36	1	7
	2	✓	2	A	115	57	72	1	7
	3	✓	3	C	68	73	5	1	5

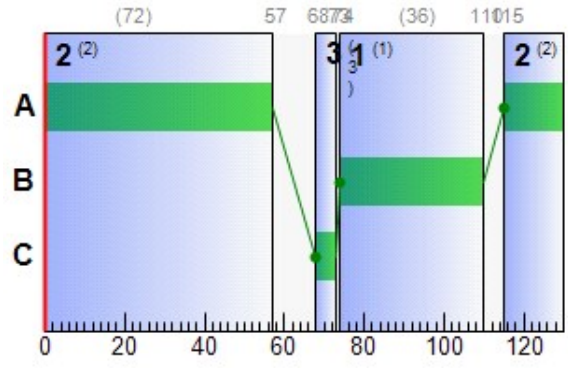
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	115	57	72
	B	1	✓	74	110	36
	C	1	✓	68	73	5

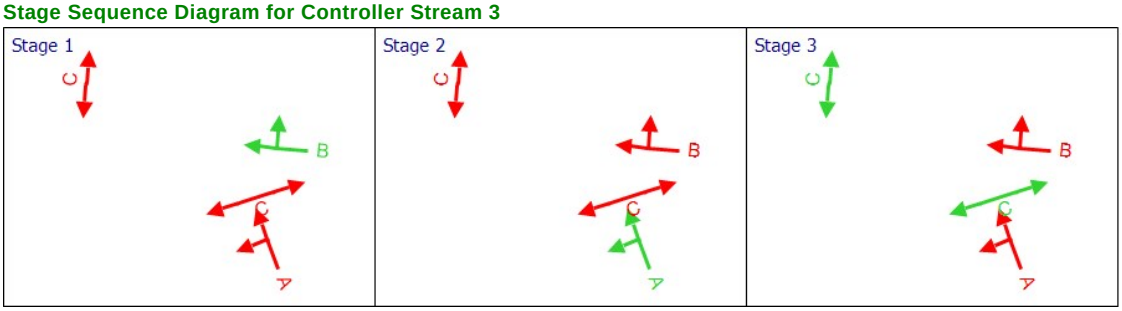
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	115	57	72
Bc	1	4	3	B	74	110	36

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3676	143	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2425	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	233	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	56	77	1139	3600	72	19.43	26.62	76.54	87.29	9.02	96.31
	Bc	1	62	61	638	3600	36	43.49	4.68	93.67	109.45	1.63	116.37
	Bx	1	0	Unrestricted	1930	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	58	73	1146	3600	54	16.10	21.09	115.42	72.78	9.29	82.07
	Cc	1	52	94	649	3600	34	27.40	3.05	61.04	70.14	1.38	73.14
	Cx	1	0	Unrestricted	1128	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	87	16	1869	3600	47	18.54	17.20	102.15	136.65	9.68	146.33
	Dc	1	73	37	789	3600	23	29.80	5.17	103.38	92.73	2.91	114.02
	Dx	1	0	Unrestricted	1006	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	8	1159	143	1800	80	0.09	0.00	0.04	0.05	0.00	0.05

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	143	143	0		5400	5400	3		3676	0.00	80	80
	Ac	1	2425	2425	0		Unrestricted	Unrestricted	0		Unrestricted	0.44	80	80
	Ax	1	233	233	0		Unrestricted	Unrestricted	0		Unrestricted	0.35	80	80
	B	1	1139	1139	0		3600	2022	56		77	0.00	72	73
	Bc	1	638	638	0		3600	1025	62		61	1.13	36	37
	Bx	1	1930	1930	0		Unrestricted	Unrestricted	0		Unrestricted	0.31	80	80
	C	1	1146	1146	0		3600	1980	58		73	0.00	54	55
	Cc	1	649	649	0		3600	1260	52		94	1.03	34	35
	Cx	1	1128	1128	0		Unrestricted	Unrestricted	0		Unrestricted	0.67	130	13
	D	1	1869	1869	0		3600	2160	87		16	0.41	47	48
	Dc	1	789	789	0		3600	1080	73		37	1.02	23	24
	Dx	1	1006	1006	0		Unrestricted	Unrestricted	0		Unrestricted	0.62	100	10
	13	1	143	143	0		1800	1800	8		1159	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	19.43	5.78	0.36	87.29	87.29	63.19	709.66	10.03	9.02	9.02
	Bc	1	2.40	43.49	7.17	0.54	109.45	109.45	20.32	115.38	14.23	1.63	1.63
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	16.10	4.73	0.40	72.78	72.78	64.67	726.87	14.24	9.29	9.29
	Cc	1	1.80	27.40	4.65	0.29	70.14	70.14	16.92	100.00	9.84	1.38	1.38
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	18.54	6.91	2.71	136.65	136.65	41.32	652.17	120.07	9.68	9.68
	Dc	1	2.40	29.80	5.50	1.03	92.73	92.73	29.40	187.50	44.46	2.91	2.91
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.09	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			3.00	0.00	3.00	
	B	1	0.00	26.62	34.78	76.54	0.00	0.00	0.00	0.36	18.40	0.00	0.00	0.00	
	Bc	1	5.00	4.68	5.00	93.67	0.00	0.11	5.29	0.52	17.35	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	21.09	18.27	115.42	0.14	0.00	0.00	0.40	14.72	0.00	0.00	0.00	
	Cc	1	5.00	3.05	5.00	61.04	0.00	0.03	1.62	0.27	12.17	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	17.20	16.84	102.15	0.07	0.00	0.00	2.71	21.92	0.00	0.00	0.00	
	Dc	1	5.00	5.17	5.00	103.38	0.01	0.37	18.38	1.00	13.71	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.04	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.51	0.08	29.87	2.12
	Ac	1	36.38	1.21	30.00	1.80
	Ax	1	23.30	0.78	30.00	12.00
	B	1	113.90	9.94	11.45	31.43
	Bc	1	12.76	8.11	1.57	45.75
	Bx	1	193.00	6.43	30.00	12.00
	C	1	60.20	7.13	8.44	22.40
	Cc	1	9.74	5.25	1.86	29.10
	Cx	1	115.43	3.85	30.00	12.28
	D	1	90.50	12.64	7.16	24.35
	Dc	1	15.78	7.03	2.24	32.08
	Dx	1	100.60	3.35	30.00	12.00
	13	1	7.20	0.24	29.58	6.13

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	26.62	0.36	18.40	1.00	0.00	96.31	96.31
	Bc	1	0.00	0.00	✓	4.68	0.52	17.35	1.00	5.29	111.08	116.37
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	21.09	0.40	14.72	1.00	0.00	82.07	82.07
	Cc	1	0.00	0.00	✓	3.05	0.27	12.17	1.00	1.62	71.51	73.14
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	17.24	2.74	21.95	1.00	0.00	146.33	146.33
	Dc	1	0.00	0.00	✓	5.16	1.00	13.71	1.00	18.38	95.64	114.02
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.05	0.05

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	40	18.30	0.83	3.61	3.61
		2	1	50	11000	40	18.30	0.83	3.61	3.61
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4400	1		8700	0.00	40	40
		2	50	50	0		11000	4400	1		8700	0.00	40	40
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	18.30	0.25	0.00	3.61	3.61
		2	5.00	18.30	0.25	0.00	3.61	3.61
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.83	10.00	8.33	0.00	0.00	0.00
		2	0.83	10.00	8.33	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.30	0.68	21.30
		2	0.30	0.32	0.93	23.30
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.83	1.00	0.00	3.61	3.61
		2	0.00	0.00	0.83	1.00	0.00	3.61	3.61
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	25/03/2022 08:20:28	25/03/2022 08:20:41	08:00	120	683.29	43.95	86.53	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	87	0	13238	896	10.90	569.08	33.91	628.28

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	100	46.48	55.01	55.01

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	13538	13538	0		87		16	996	1002

Network Results: Stops and delays

Time Segment	Mean Cruise Time per	Mean Delay per Veh	Uniform delay (Veh	Random plus oversat delay (Veh	Unweighted cost of delay (£	Weighted cost of delay	Mean stops per Veh	Uniform stops (Stops per	Random stops (Stops per	Unweighted cost of stops (£	Weighted cost of stops
08:00-09:00	7.01	11.69	38.61	5.34	624.09	624.09	19.98	2491.59	212.87	33.91	33.91

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	115.42	25.29	19.00	0.00	19.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	782.69	70.23	11.14

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	25.29	0.00	658.00	683.29

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	34.4	66.5	68.3	0.0	0.0	0.0	0.0
	2	84.2	0.0	36.3	38.1	0.0	0.0	0.0	0.0
	3	66.3	95.1	0.0	20.2	0.0	0.0	0.0	0.0
	4	43.7	72.5	104.6	106.4	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	86.9	0.0	0.0
	6	0.0	0.0	0.0	0.0	86.9	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	398		34.40		398	34.40
8	1	3	88		66.48		88	66.48
16	3	1	76		66.27		76	66.27
17	3	4	24		20.24		24	20.24
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	24		104.60		24	104.60
25	4	2	565		72.53		565	72.53
26	2	1	519		84.17		519	84.17
31	2	3	121		36.35		121	36.35
32	6	5		50		86.88	50	86.88
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		86.88	50	86.88
137	4	1	533		43.71		533	43.71
140	2	4	1229		38.15		1229	38.15
141	3	2	43		95.09		43	95.09
142	1	4	660		68.28		660	68.28
143	4	4	17		106.40		17	106.40

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			143	5400	80	0.00	3	3676	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2425	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				233	Unrestricted	80	3.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1139	3600	72	0.00	56	77	31.43	19.43	63.19	26.62	18.
Bc	1	(untitled)	4	3	B	638	3600	36	0.00	62	61	45.75	43.49	20.32	4.68	17.
Bx	1	(untitled)				1930	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1146 <	3600	54	0.00	58	73	22.40	16.10	64.67	21.09 +	14.
Cc	1	(untitled)	1	1	B	649	3600	34	0.00	52	94	29.10	27.40	16.92	3.05	12.
Cx	1	(untitled)				1128	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1869 <	3600	47	0.00	87	16	24.35	18.54	41.32	17.20 +	21.
Dc	1	(untitled)	2	2	B	789 <	3600	23	0.00	73	37	32.08	29.80	29.40	5.17 +	13.
Dx	1	(untitled)				1006	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			143	1800	80	0.00	8	1159	6.13	0.09	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	40	1	8700	21.30	18.30	0.83	100	0
	2	(untitled)		1	C	50	11000	40	1	8700	23.30	18.30	0.83	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	781.29	66.05	11.83	34.74	5.34	569.08	33.91	25.29	628.28
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.18	0.33	3.87	0.00	55.01	0.00	0.00	55.01
TOTAL	782.69	70.23	11.14	38.61	5.34	624.09	33.91	25.29	683.29

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - 2027 DO NOTHING
D5 - 2027 DO NOTHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	145	145
Ac	1	2433	2433
Ax	1	234	234
B	1	1150	1150
Bc	1	638	638
Bx	1	1940	1940
C	1	1119	1119
Cc	1	662	662
Cx	1	1126	1126
D	1	1895	1895
Dc	1	772	772
Dx	1	1009	1009
13	1	145	145

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	389	85	645	0	0	0	0
	2	518	0	124	1253	0	0	0	0
	3	76	44	0	25	0	0	0	0
	4	532	576	25	17	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	389
	8		1	3	C/1, Dc/1, Ax/1	Normal	85
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	76
	17		3	4	13/1, A/1, Bx/1	Normal	25
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	25
	25		4	2	B/1, Cc/1, Dx/1	Normal	576
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	518
	31		2	3	D/1, Ax/1	Normal	124
	137		4	1	B/1, Cx/1	Normal	532
	140		2	4	D/1, Ac/1, Bx/1	Normal	1253
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	44
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	645
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	17

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	21, 79

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

	To		
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

	To		
From		1	2
	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	86	21	35	1	7
	2	✓	2	A	26	79	53	1	7

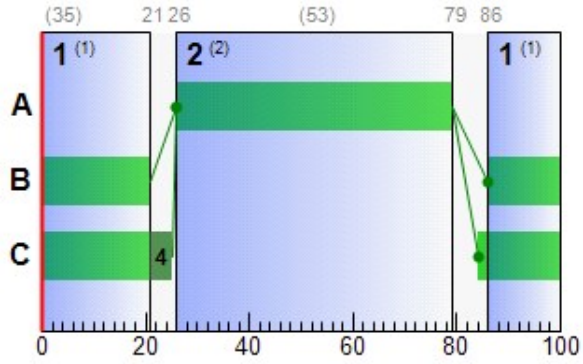
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	26	79	53
	B	1	✓	86	21	35
	C	1	✓	84	25	41

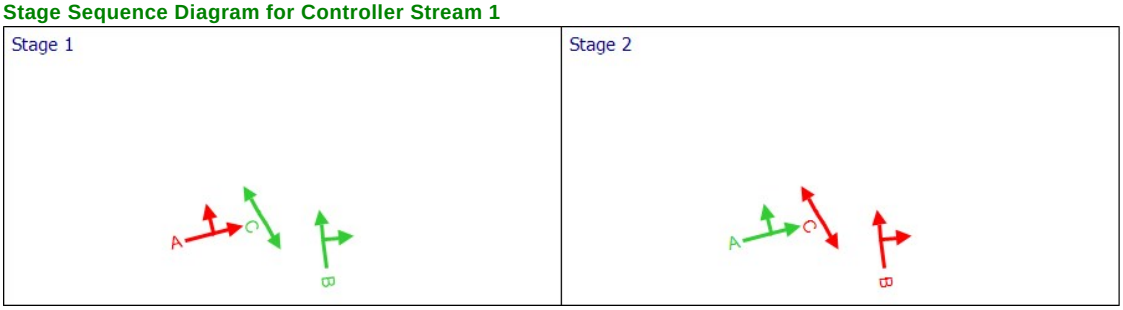
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	26	79	53
Cc	1	1	1	B	86	21	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	0, 53

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	58	0	22	1	7
	2	✓	2	A	5	53	48	1	7

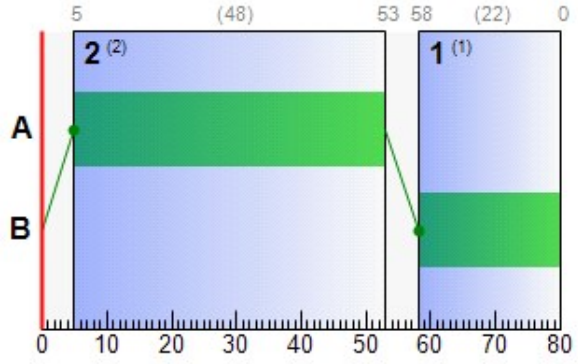
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	5	53	48
	B	1	✓	58	0	22

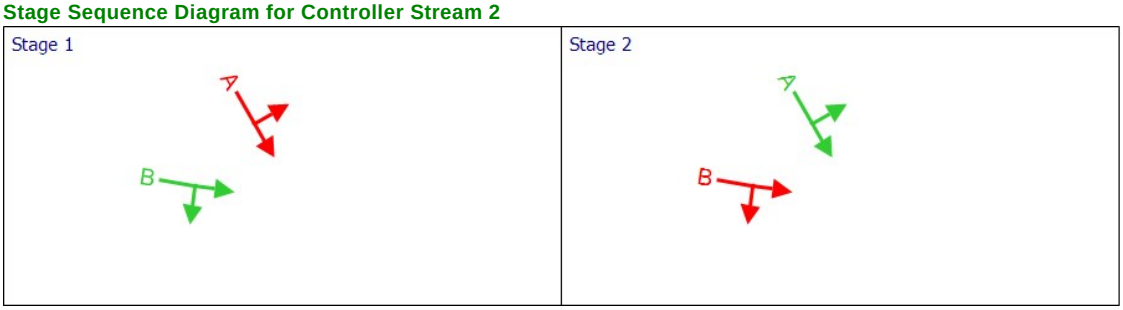
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	5	53	48
Dc	1	2	2	B	58	0	22

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	74, 21, 37

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	38	74	36	1	7
	2	✓	2	A	79	21	72	1	7
	3	✓	3	C	32	37	5	1	5

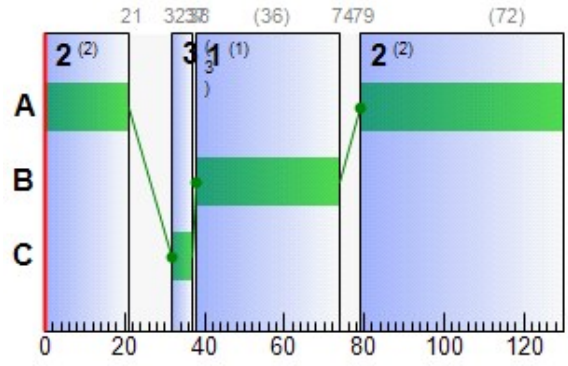
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	79	21	72
	B	1	✓	38	74	36
	C	1	✓	32	37	5

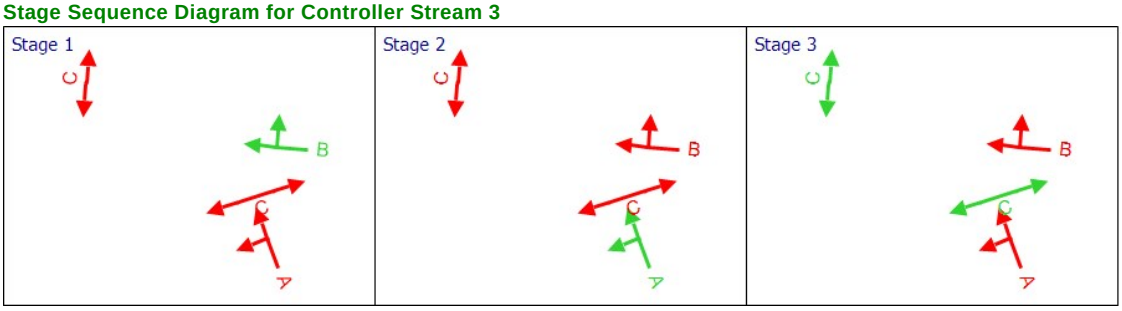
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	79	21	72
Bc	1	4	3	B	38	74	36

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3624	145	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2433	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	234	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	57	76	1150	3600	72	19.54	26.89	77.30	88.62	9.15	97.76
	Bc	1	62	61	638	3600	36	43.49	4.68	93.67	109.45	1.63	117.02
	Bx	1	0	Unrestricted	1940	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	58	74	1119	3600	53	16.61	20.90	114.41	73.30	9.20	82.50
	Cc	1	51	96	662	3600	35	26.65	3.05	60.90	69.59	1.37	72.35
	Cx	1	0	Unrestricted	1126	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	86	16	1895	3600	48	17.57	17.06	101.31	131.30	9.61	140.90
	Dc	1	75	34	772	3600	22	31.15	5.28	105.54	94.87	2.97	118.26
	Dx	1	0	Unrestricted	1009	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	8	1141	145	1800	80	0.09	0.00	0.04	0.05	0.00	0.05

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	145	145	0		5400	5400	3		3624	0.00	80	80
	Ac	1	2433	2433	0		Unrestricted	Unrestricted	0		Unrestricted	0.43	80	80
	Ax	1	234	234	0		Unrestricted	Unrestricted	0		Unrestricted	0.35	80	80
	B	1	1150	1150	0		3600	2022	57		76	0.00	72	73
	Bc	1	638	638	0		3600	1025	62		61	1.13	36	37
	Bx	1	1940	1940	0		Unrestricted	Unrestricted	0		Unrestricted	0.30	80	80
	C	1	1119	1119	0		3600	1944	58		74	0.00	53	54
	Cc	1	662	662	0		3600	1296	51		96	1.02	35	36
	Cx	1	1126	1126	0		Unrestricted	Unrestricted	0		Unrestricted	0.66	130	13
	D	1	1895	1895	0		3600	2205	86		16	0.40	48	49
	Dc	1	772	772	0		3600	1035	75		34	1.04	22	23
	Dx	1	1009	1009	0		Unrestricted	Unrestricted	0		Unrestricted	0.62	100	10
	13	1	145	145	0		1800	1800	8		1141	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	19.54	5.87	0.37	88.62	88.62	63.42	719.00	10.35	9.15	9.15
	Bc	1	2.40	43.49	7.17	0.54	109.45	109.45	20.32	115.38	14.23	1.63	1.63
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	16.61	4.77	0.39	73.30	73.30	65.55	719.56	13.98	9.20	9.20
	Cc	1	1.80	26.65	4.62	0.28	69.59	69.59	16.55	100.00	9.59	1.37	1.37
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	17.57	6.68	2.57	131.30	131.30	40.43	652.17	113.90	9.61	9.61
	Dc	1	2.40	31.15	5.54	1.14	94.87	94.87	30.66	187.50	49.16	2.97	2.97
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.09	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			3.00	0.00	3.00	
	B	1	0.00	26.89	34.78	77.30	0.00	0.00	0.00	0.37	18.58	0.00	0.00	0.00	
	Bc	1	5.00	4.68	5.00	93.67	0.00	0.12	5.94	0.52	17.35	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	20.90	18.27	114.41	0.13	0.00	0.00	0.39	14.69	0.00	0.00	0.00	
	Cc	1	5.00	3.05	5.00	60.90	0.00	0.03	1.39	0.27	12.22	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	17.06	16.84	101.31	0.04	0.00	0.00	2.57	21.52	0.00	0.00	0.00	
	Dc	1	5.00	5.28	5.00	105.54	0.02	0.41	20.42	1.11	13.76	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.04	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.55	0.09	29.87	2.12
	Ac	1	36.50	1.22	30.00	1.80
	Ax	1	23.40	0.78	30.00	12.00
	B	1	115.00	10.07	11.42	31.54
	Bc	1	12.76	8.11	1.57	45.75
	Bx	1	194.00	6.47	30.00	12.00
	C	1	58.78	7.12	8.25	22.91
	Cc	1	9.93	5.21	1.90	28.35
	Cx	1	115.23	3.84	30.00	12.28
	D	1	91.76	12.30	7.46	23.38
	Dc	1	15.44	7.17	2.15	33.43
	Dx	1	100.90	3.36	30.00	12.00
	13	1	7.30	0.25	29.57	6.13

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	26.89	0.37	18.58	1.00	0.00	97.76	97.76
	Bc	1	0.00	0.00	✓	4.68	0.52	17.35	1.00	5.94	111.08	117.02
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	20.90	0.39	14.69	1.00	0.00	82.50	82.50
	Cc	1	0.00	0.00	✓	3.04	0.27	12.22	1.00	1.39	70.96	72.35
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	17.09	2.60	21.55	1.00	0.00	140.90	140.90
	Dc	1	0.00	0.00	✓	5.27	1.10	13.75	1.00	20.42	97.84	118.26
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.05	0.05

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	41	17.70	0.82	3.49	3.49
		2	1	50	11000	41	17.70	0.82	3.49	3.49
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4510	1		8920	0.00	41	41
		2	50	50	0		11000	4510	1		8920	0.00	41	41
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	17.70	0.25	0.00	3.49	3.49
		2	5.00	17.70	0.25	0.00	3.49	3.49
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.82	10.00	8.19	0.00	0.00	0.00
		2	0.82	10.00	8.19	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.29	0.70	20.70
		2	0.30	0.32	0.95	22.70
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.82	1.00	0.00	3.49	3.49
		2	0.00	0.00	0.82	1.00	0.00	3.49	3.49
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	25/03/2022 08:20:42	25/03/2022 08:20:54	08:00	120	683.61	43.80	85.94	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	86	0	13268	896	10.84	567.17	33.91	628.84

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	102	46.28	54.77	54.77

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	13568	13568	0		86		16	998	1004

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.01	11.62	38.50	5.30	621.94	621.94	19.94	2493.61	211.21	33.91	33.91

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	114.41	27.75	19.00	0.00	19.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	784.94	70.15	11.19

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	27.75	0.00	655.86	683.61

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	34.9	68.3	70.1	0.0	0.0	0.0	0.0
	2	83.2	0.0	35.4	37.2	0.0	0.0	0.0	0.0
	3	66.3	94.3	0.0	20.2	0.0	0.0	0.0	0.0
	4	43.8	71.9	105.3	107.1	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	86.3	0.0	0.0
	6	0.0	0.0	0.0	0.0	86.3	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	389		34.91		389	34.91
8	1	3	85		68.34		85	68.34
16	3	1	76		66.27		76	66.27
17	3	4	25		20.25		25	20.25
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	25		105.32		25	105.32
25	4	2	576		71.89		576	71.89
26	2	1	518		83.20		518	83.20
31	2	3	124		35.38		124	35.38
32	6	5		50		86.28	50	86.28
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		86.28	50	86.28
137	4	1	532		43.82		532	43.82
140	2	4	1253		37.18		1253	37.18
141	3	2	44		94.35		44	94.35
142	1	4	645		70.14		645	70.14
143	4	4	17		107.12		17	107.12

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			145	5400	80	0.00	3	3624	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2433	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				234	Unrestricted	80	3.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1150	3600	72	0.00	57	76	31.54	19.54	63.42	26.89	18.
Bc	1	(untitled)	4	3	B	638	3600	36	0.00	62	61	45.75	43.49	20.32	4.68	17.
Bx	1	(untitled)				1940	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1119 <	3600	53	0.00	58	74	22.91	16.61	65.55	20.90 +	14.
Cc	1	(untitled)	1	1	B	662	3600	35	0.00	51	96	28.35	26.65	16.55	3.05	12.
Cx	1	(untitled)				1126	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1895 <	3600	48	0.00	86	16	23.38	17.57	40.43	17.06 +	21.
Dc	1	(untitled)	2	2	B	772 <	3600	22	0.00	75	34	33.43	31.15	30.66	5.28 +	13.
Dx	1	(untitled)				1009	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			145	1800	80	0.00	8	1141	6.13	0.09	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	41	1	8920	20.70	17.70	0.82	100	0
	2	(untitled)		1	C	50	11000	41	1	8920	22.70	17.70	0.82	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	783.54	65.99	11.87	34.64	5.30	567.17	33.91	27.75	628.84
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.16	0.34	3.86	0.00	54.77	0.00	0.00	54.77
TOTAL	784.94	70.15	11.19	38.50	5.30	621.94	33.91	27.75	683.61

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - 2027 DO SOMETHING
D6 - 2027 DO SOMETHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	147	147
Ac	1	2513	2513
Ax	1	243	243
B	1	1173	1173
Bc	1	663	663
Bx	1	1997	1997
C	1	1220	1220
Cc	1	662	662
Cx	1	1174	1174
D	1	1918	1918
Dc	1	838	838
Dx	1	1044	1044
13	1	147	147

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	424	94	702	0	0	0	0
	2	541	0	124	1253	0	0	0	0
	3	78	44	0	25	0	0	0	0
	4	555	576	25	17	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	424
	8		1	3	C/1, Dc/1, Ax/1	Normal	94
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	78
	17		3	4	13/1, A/1, Bx/1	Normal	25
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	25
	25		4	2	B/1, Cc/1, Dx/1	Normal	576
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	541
	31		2	3	D/1, Ax/1	Normal	124
	137		4	1	B/1, Cx/1	Normal	555
	140		2	4	D/1, Ac/1, Bx/1	Normal	1253
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	44
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	702
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	17

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	11, 71

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	78	11	33	1	7
	2	✓	2	A	16	71	55	1	7

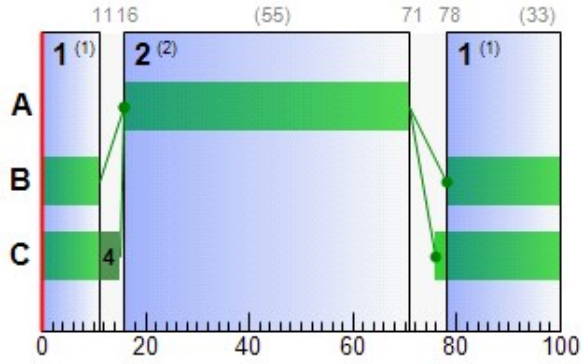
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	16	71	55
	B	1	✓	78	11	33
	C	1	✓	76	15	39

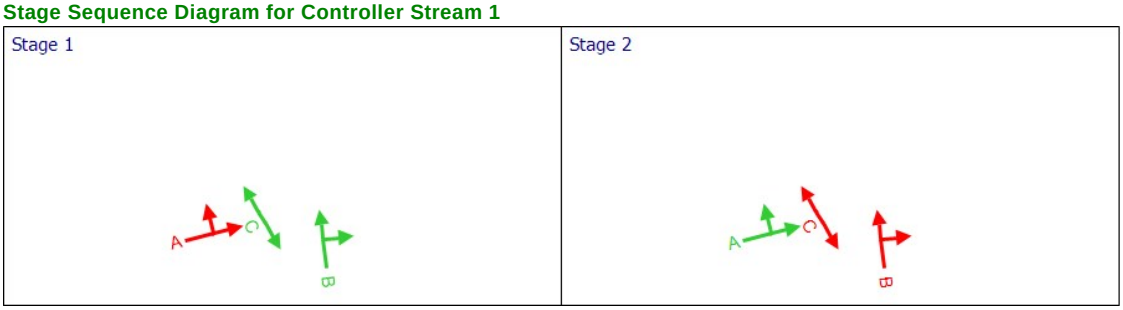
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	16	71	55
Cc	1	1	1	B	78	11	33

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	25, 77

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	2	25	23	1	7
	2	✓	2	A	30	77	47	1	7

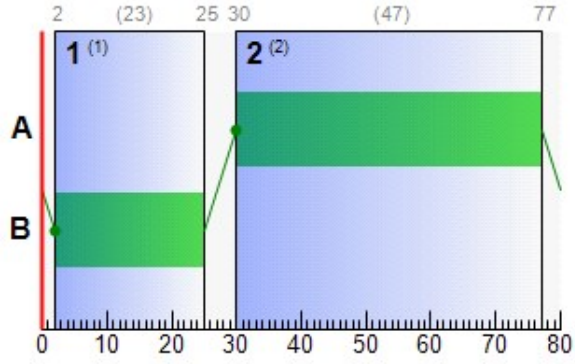
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	30	77	47
	B	1	✓	2	25	23

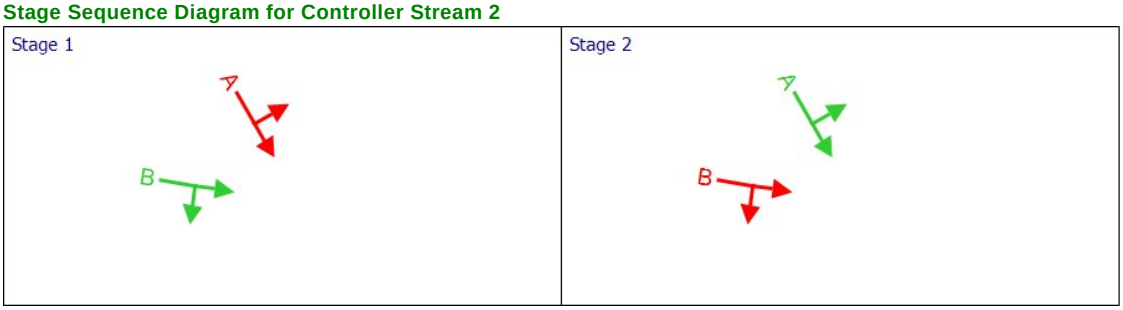
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	30	77	47
Dc	1	2	2	B	2	25	23

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	75, 22, 38

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	39	75	36	1	7
	2	✓	2	A	80	22	72	1	7
	3	✓	3	C	33	38	5	1	5

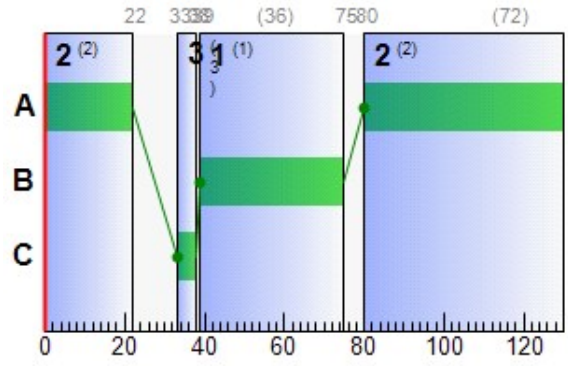
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	80	22	72
	B	1	✓	39	75	36
	C	1	✓	33	38	5

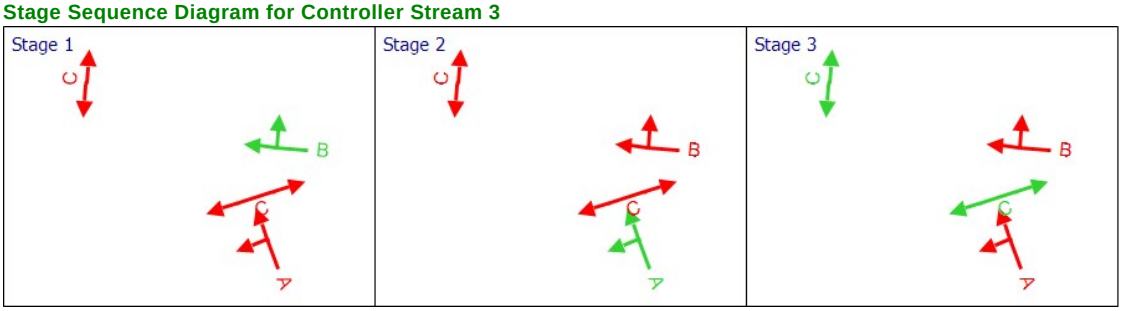
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	80	22	72
Bc	1	4	3	B	39	75	36

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3573	147	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2513	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	243	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	58	72	1173	3600	72	19.77	27.77	79.84	91.45	9.43	100.88
	Bc	1	65	55	663	3600	36	44.16	4.76	95.28	115.49	1.65	123.33
	Bx	1	0	Unrestricted	1997	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	61	65	1220	3600	55	16.01	22.83	124.94	77.04	10.01	87.05
	Cc	1	54	85	662	3600	33	28.53	3.10	61.95	74.51	1.40	79.04
	Cx	1	0	Unrestricted	1174	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	89	13	1918	3600	47	20.08	17.89	106.23	151.90	10.06	161.96
	Dc	1	78	29	838	3600	23	31.52	5.53	110.67	104.18	3.11	138.03
	Dx	1	0	Unrestricted	1044	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	8	1124	147	1800	80	0.09	0.00	0.04	0.05	0.00	0.05

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	147	147	0		5400	5400	3		3573	0.00	80	80
	Ac	1	2513	2513	0		Unrestricted	Unrestricted	0		Unrestricted	0.40	80	80
	Ax	1	243	243	0		Unrestricted	Unrestricted	0		Unrestricted	0.36	80	80
	B	1	1173	1173	0		3600	2022	58		72	0.00	72	73
	Bc	1	663	663	0		3600	1025	65		55	1.14	36	37
	Bx	1	1997	1997	0		Unrestricted	Unrestricted	0		Unrestricted	0.28	80	80
	C	1	1220	1220	0		3600	2016	61		65	0.00	55	56
	Cc	1	662	662	0		3600	1224	54		85	1.06	33	34
	Cx	1	1174	1174	0		Unrestricted	Unrestricted	0		Unrestricted	0.65	130	13
	D	1	1918	1918	0		3600	2160	89		13	0.43	47	48
	Dc	1	838	838	0		3600	1080	78		29	1.05	23	24
	Dx	1	1044	1044	0		Unrestricted	Unrestricted	0		Unrestricted	0.60	100	10
	13	1	147	147	0		1800	1800	8		1124	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	19.77	6.04	0.40	91.45	91.45	64.12	741.13	11.05	9.43	9.43
	Bc	1	2.40	44.16	7.51	0.62	115.49	115.49	19.88	115.38	16.44	1.65	1.65
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	16.01	4.96	0.46	77.04	77.04	65.46	782.02	16.59	10.01	10.01
	Cc	1	1.80	28.53	4.91	0.34	74.51	74.51	16.84	100.00	11.45	1.40	1.40
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	20.08	7.30	3.40	151.90	151.90	41.82	652.17	149.92	10.06	10.06
	Dc	1	2.40	31.52	5.95	1.39	104.18	104.18	29.58	187.50	60.40	3.11	3.11
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.09	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			2.00	0.00	2.00	
	B	1	0.00	27.77	34.78	79.84	0.00	0.00	0.00	0.40	18.97	0.00	0.00	0.00	
	Bc	1	5.00	4.76	5.00	95.28	0.00	0.12	6.19	0.60	18.09	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	22.83	18.27	124.94	0.33	0.00	0.00	0.46	15.37	0.00	0.00	0.00	
	Cc	1	5.00	3.10	5.00	61.95	0.00	0.06	3.13	0.32	12.64	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	17.89	16.84	106.23	0.25	0.00	0.00	3.40	23.11	0.00	0.00	0.00	
	Dc	1	5.00	5.53	5.00	110.67	0.05	0.61	30.74	1.37	14.87	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.04	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.58	0.09	29.87	2.12
	Ac	1	37.70	1.26	30.00	1.80
	Ax	1	24.30	0.81	30.00	12.00
	B	1	117.30	10.35	11.33	31.77
	Bc	1	13.26	8.55	1.55	46.42
	Bx	1	199.70	6.66	30.00	12.00
	C	1	64.09	7.56	8.48	22.31
	Cc	1	9.93	5.56	1.79	30.23
	Cx	1	120.14	4.00	30.00	12.28
	D	1	92.87	13.79	6.73	25.89
	Dc	1	16.76	7.87	2.13	33.82
	Dx	1	104.40	3.48	30.00	12.00
	13	1	7.40	0.25	29.56	6.13

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	27.77	0.40	18.97	1.00	0.00	100.88	100.88
	Bc	1	0.00	0.00	✓	4.76	0.60	18.09	1.00	6.19	117.14	123.33
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	22.83	0.46	15.37	1.00	0.00	87.05	87.05
	Cc	1	0.00	0.00	✓	3.10	0.32	12.64	1.00	3.13	75.90	79.04
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	17.95	3.46	23.17	1.00	0.00	161.96	161.96
	Dc	1	0.00	0.00	✓	5.52	1.36	14.86	1.00	30.74	107.29	138.03
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.05	0.05

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	39	18.91	0.85	3.73	3.73
		2	1	50	11000	39	18.91	0.85	3.73	3.73
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4290	1		8480	0.00	39	39
		2	50	50	0		11000	4290	1		8480	0.00	39	39
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	18.91	0.26	0.00	3.73	3.73
		2	5.00	18.91	0.26	0.00	3.73	3.73
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.85	10.00	8.47	0.00	0.00	0.00
		2	0.85	10.00	8.47	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.30	0.66	21.91
		2	0.30	0.33	0.90	23.91
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.85	1.00	0.00	3.73	3.73
		2	0.00	0.00	0.85	1.00	0.00	3.73	3.73
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh	Highest DOS (%)	Item with highest	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised	Item with worst unsignalised	Ite wit wor over
6	25/03/2022 08:20:54	25/03/2022 08:21:06	08:00	120	745.60	47.17	88.80	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	89	0	13739	896	11.34	614.63	35.66	690.35

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	98	46.69	55.25	55.25

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	14039	14039	0		89		13	994	1000

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.01	12.10	40.56	6.62	669.88	669.88	20.26	2578.20	265.86	35.66	35.66

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	124.94	40.06	18.00	0.00	18.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	811.83	74.43	10.91

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	40.06	0.00	705.54	745.60

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	34.3	68.1	69.9	0.0	0.0	0.0	0.0
	2	86.4	0.0	37.9	39.7	0.0	0.0	0.0	0.0
	3	66.9	96.9	0.0	20.2	0.0	0.0	0.0	0.0
	4	44.0	74.0	107.8	109.6	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	87.5	0.0	0.0
	6	0.0	0.0	0.0	0.0	87.5	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	424		34.31		424	34.31
8	1	3	94		68.13		94	68.13
16	3	1	78		66.95		78	66.95
17	3	4	25		20.25		25	20.25
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	25		107.81		25	107.81
25	4	2	576		73.99		576	73.99
26	2	1	541		86.39		541	86.39
31	2	3	124		37.89		124	37.89
32	6	5		50		87.49	50	87.49
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		87.49	50	87.49
137	4	1	555		44.05		555	44.05
140	2	4	1253		39.69		1253	39.69
141	3	2	44		96.89		44	96.89
142	1	4	702		69.93		702	69.93
143	4	4	17		109.61		17	109.61

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			147	5400	80	0.00	3	3573	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2513	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				243	Unrestricted	80	2.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1173	3600	72	0.00	58	72	31.77	19.77	64.12	27.77	18.
Bc	1	(untitled)	4	3	B	663	3600	36	0.00	65	55	46.42	44.16	19.88	4.76	18.
Bx	1	(untitled)				1997	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1220 <	3600	55	0.00	61	65	22.31	16.01	65.46	22.83 +	15.
Cc	1	(untitled)	1	1	B	662	3600	33	0.00	54	85	30.23	28.53	16.84	3.10	12.
Cx	1	(untitled)				1174	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1918 <	3600	47	0.00	89	13	25.89	20.08	41.82	17.89 +	23.
Dc	1	(untitled)	2	2	B	838 <	3600	23	0.00	78	29	33.82	31.52	29.58	5.53 +	14.
Dx	1	(untitled)				1044	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			147	1800	80	0.00	8	1124	6.13	0.09	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	39	1	8480	21.91	18.91	0.85	100	0
	2	(untitled)		1	C	50	11000	39	1	8480	23.91	18.91	0.85	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	810.43	70.23	11.54	36.67	6.62	614.63	35.66	40.06	690.35
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.20	0.33	3.89	0.00	55.25	0.00	0.00	55.25
TOTAL	811.83	74.43	10.91	40.56	6.62	669.88	35.66	40.06	745.60

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - 2032 DO NOTHING
D7 - 2032 DO NOTHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	152	152
Ac	1	2558	2558
Ax	1	246	246
B	1	1210	1210
Bc	1	670	670
Bx	1	2040	2040
C	1	1177	1177
Cc	1	696	696
Cx	1	1184	1184
D	1	1992	1992
Dc	1	812	812
Dx	1	1061	1061
13	1	152	152

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	409	90	678	0	0	0	0
	2	544	0	130	1318	0	0	0	0
	3	80	46	0	26	0	0	0	0
	4	560	606	26	18	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	409
	8		1	3	C/1, Dc/1, Ax/1	Normal	90
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	80
	17		3	4	13/1, A/1, Bx/1	Normal	26
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	26
	25		4	2	B/1, Cc/1, Dx/1	Normal	606
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	544
	31		2	3	D/1, Ax/1	Normal	130
	137		4	1	B/1, Cx/1	Normal	560
	140		2	4	D/1, Ac/1, Bx/1	Normal	1318
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	46
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	678
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	18

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	27, 85

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

	To		
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

	To		
From		1	2
	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	92	27	35	1	7
	2	✓	2	A	32	85	53	1	7

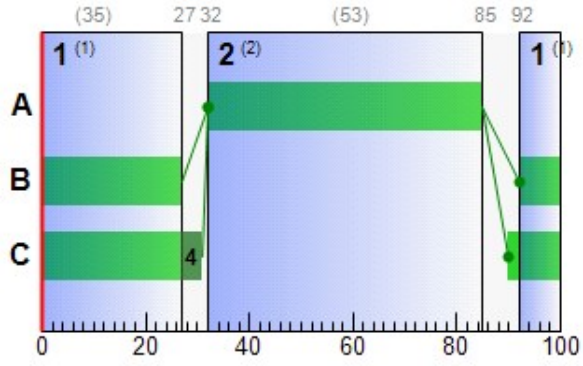
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	32	85	53
	B	1	✓	92	27	35
	C	1	✓	90	31	41

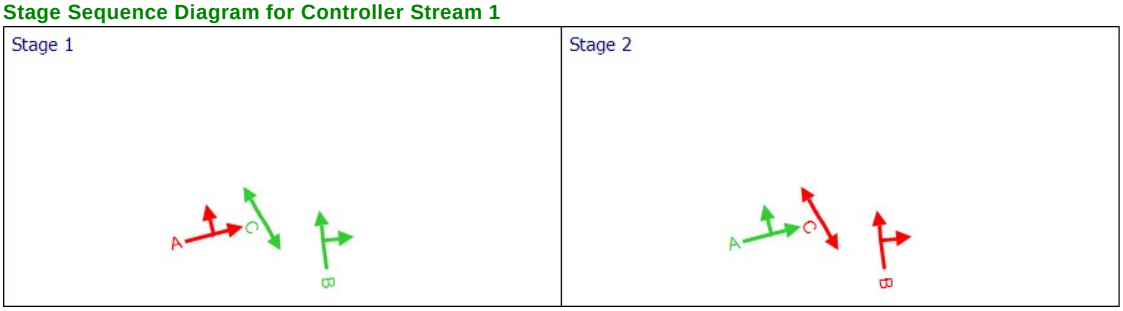
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	32	85	53
Cc	1	1	1	B	92	27	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	55, 28

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	33	55	22	1	7
	2	✓	2	A	60	28	48	1	7

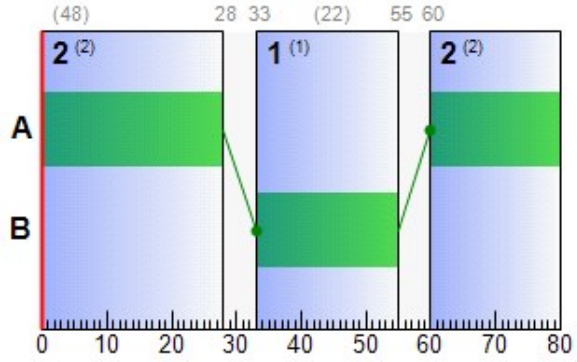
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	60	28	48
	B	1	✓	33	55	22

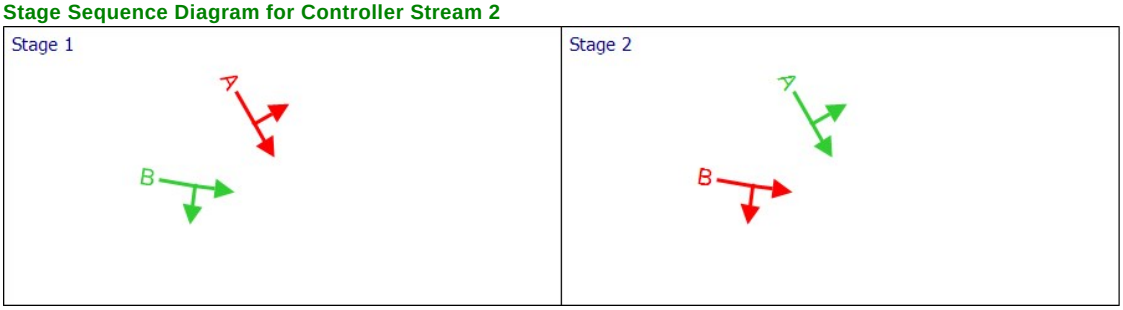
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	60	28	48
Dc	1	2	2	B	33	55	22

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	49, 126, 12

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	13	49	36	1	7
	2	✓	2	A	54	126	72	1	7
	3	✓	3	C	7	12	5	1	5

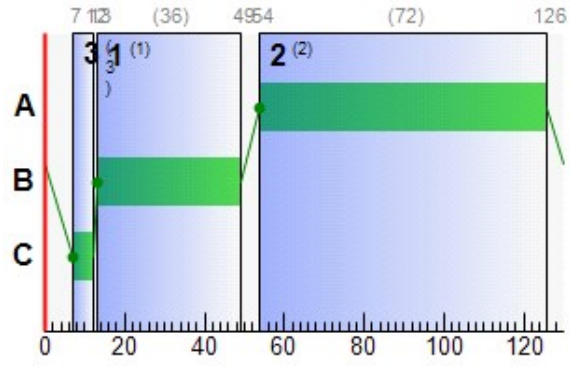
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	54	126	72
	B	1	✓	13	49	36
	C	1	✓	7	12	5

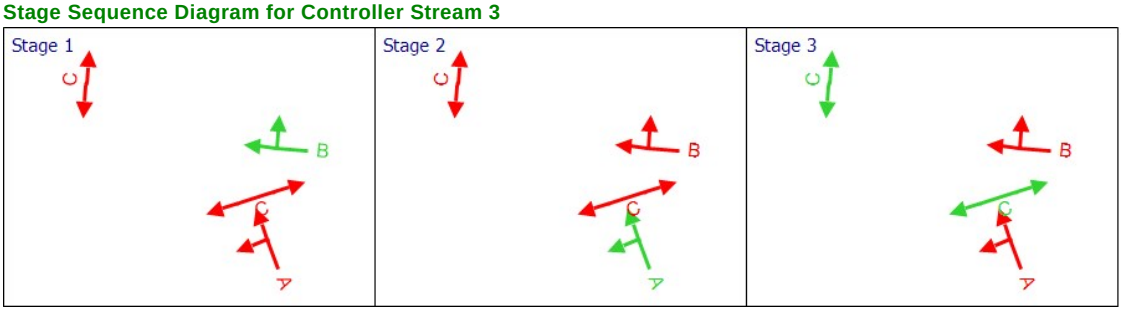
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	54	126	72
Bc	1	4	3	B	13	49	36

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3453	152	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2558	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	246	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	60	67	1210	3600	72	20.15	29.01	83.42	96.16	9.87	106.03
	Bc	1	65	53	670	3600	36	44.36	4.79	95.78	117.24	1.66	125.36
	Bx	1	0	Unrestricted	2040	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	61	65	1177	3600	53	17.14	22.70	124.21	79.57	9.93	89.50
	Cc	1	54	86	696	3600	35	27.10	3.09	61.80	74.41	1.39	78.64
	Cx	1	0	Unrestricted	1184	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	90	11	1992	3600	48	20.74	18.53	110.02	162.99	10.40	173.40
	Dc	1	78	27	812	3600	22	32.79	5.62	112.47	105.01	3.16	142.91
	Dx	1	0	Unrestricted	1061	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	8	1084	152	1800	80	0.09	0.00	0.04	0.06	0.00	0.06

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	152	152	0		5400	5400	3		3453	0.00	80	80
	Ac	1	2558	2558	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	80	80
	Ax	1	246	246	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	80	80
	B	1	1210	1210	0		3600	2022	60		67	0.00	72	73
	Bc	1	670	670	0		3600	1025	65		53	1.15	36	37
	Bx	1	2040	2040	0		Unrestricted	Unrestricted	0		Unrestricted	0.27	80	80
	C	1	1177	1177	0		3600	1944	61		65	0.00	53	54
	Cc	1	696	696	0		3600	1296	54		86	1.03	35	36
	Cx	1	1184	1184	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	130	13
	D	1	1992	1992	0		3600	2205	90		11	0.43	48	49
	Dc	1	812	812	0		3600	1035	78		27	1.06	22	23
	Dx	1	1061	1061	0		Unrestricted	Unrestricted	0		Unrestricted	0.60	100	10
	13	1	152	152	0		1800	1800	8		1084	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	20.15	6.33	0.45	96.16	96.16	65.07	775.10	12.29	9.87	9.87
	Bc	1	2.40	44.36	7.61	0.65	117.24	117.24	19.78	115.38	17.12	1.66	1.66
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	17.14	5.14	0.46	79.57	79.57	67.31	775.58	16.62	9.93	9.93
	Cc	1	1.80	27.10	4.91	0.33	74.41	74.41	15.98	100.00	11.20	1.39	1.39
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	20.74	7.44	4.04	162.99	162.99	41.65	652.17	177.59	10.40	10.40
	Dc	1	2.40	32.79	5.92	1.48	105.01	105.01	31.00	187.50	64.24	3.16	3.16
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.09	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			1.00	0.00	1.00	
	B	1	0.00	29.01	34.78	83.42	0.00	0.00	0.00	0.45	19.60	0.00	0.00	0.00	
	Bc	1	5.00	4.79	5.00	95.78	0.00	0.13	6.46	0.62	18.30	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	22.70	18.27	124.21	0.32	0.00	0.00	0.46	15.50	0.00	0.00	0.00	
	Cc	1	5.00	3.09	5.00	61.80	0.00	0.06	2.84	0.31	12.88	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	18.53	16.84	110.02	0.43	0.00	0.00	4.04	23.96	0.00	0.00	0.00	
	Dc	1	5.00	5.62	5.00	112.47	0.07	0.69	34.75	1.46	14.76	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.04	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.67	0.09	29.86	2.12
	Ac	1	38.37	1.28	30.00	1.80
	Ax	1	24.60	0.82	30.00	12.00
	B	1	121.00	10.81	11.20	32.15
	Bc	1	13.40	8.68	1.54	46.62
	Bx	1	204.00	6.80	30.00	12.00
	C	1	61.83	7.66	8.07	23.44
	Cc	1	10.44	5.57	1.87	28.81
	Cx	1	121.16	4.04	30.00	12.28
	D	1	96.46	14.69	6.56	26.55
	Dc	1	16.24	7.91	2.05	35.08
	Dx	1	106.10	3.54	30.00	12.00
	13	1	7.65	0.26	29.55	6.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	29.02	0.45	19.60	1.00	0.00	106.03	106.03
	Bc	1	0.00	0.00	✓	4.79	0.62	18.30	1.00	6.46	118.90	125.36
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	22.70	0.46	15.50	1.00	0.00	89.50	89.50
	Cc	1	0.00	0.00	✓	3.09	0.31	12.88	1.00	2.84	75.80	78.64
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	18.62	4.13	24.05	1.00	0.00	173.40	173.40
	Dc	1	0.00	0.00	✓	5.61	1.44	14.75	1.00	34.75	108.17	142.91
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.06	0.06

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	41	17.70	0.82	3.49	3.49
		2	1	50	11000	41	17.70	0.82	3.49	3.49
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4510	1		8920	0.00	41	41
		2	50	50	0		11000	4510	1		8920	0.00	41	41
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	17.70	0.25	0.00	3.49	3.49
		2	5.00	17.70	0.25	0.00	3.49	3.49
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.82	10.00	8.19	0.00	0.00	0.00
		2	0.82	10.00	8.19	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.29	0.70	20.70
		2	0.30	0.32	0.95	22.70
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.82	1.00	0.00	3.49	3.49
		2	0.00	0.00	0.82	1.00	0.00	3.49	3.49
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	25/03/2022 08:21:07	25/03/2022 08:21:19	08:00	120	770.68	48.61	90.34	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	90	0	13950	896	11.55	635.44	36.42	715.91

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	102	46.28	54.77	54.77

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	14250	14250	0		90		11	998	1004

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.02	12.28	41.20	7.41	690.21	690.21	20.38	2605.74	299.07	36.42	36.42

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	124.21	44.05	17.00	0.00	17.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	825.32	76.31	10.82

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	44.05	0.00	726.63	770.68

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	35.4	70.5	72.3	0.0	0.0	0.0	0.0
	2	87.3	0.0	38.6	40.4	0.0	0.0	0.0	0.0
	3	67.1	95.7	0.0	20.3	0.0	0.0	0.0	0.0
	4	44.4	73.0	108.0	109.8	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	86.3	0.0	0.0
	6	0.0	0.0	0.0	0.0	86.3	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	409		35.44		409	35.44
8	1	3	90		70.53		90	70.53
16	3	1	80		67.15		80	67.15
17	3	4	26		20.25		26	20.25
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	26		108.04		26	108.04
25	4	2	606		72.96		606	72.96
26	2	1	544		87.25		544	87.25
31	2	3	130		38.55		130	38.55
32	6	5		50		86.28	50	86.28
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		86.28	50	86.28
137	4	1	560		44.43		560	44.43
140	2	4	1318		40.35		1318	40.35
141	3	2	46		95.68		46	95.68
142	1	4	678		72.33		678	72.33
143	4	4	18		109.84		18	109.84

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			152	5400	80	0.00	3	3453	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2558	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				246	Unrestricted	80	1.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1210	3600	72	0.00	60	67	32.15	20.15	65.07	29.01	19.
Bc	1	(untitled)	4	3	B	670	3600	36	0.00	65	53	46.62	44.36	19.78	4.79	18.
Bx	1	(untitled)				2040	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1177 <	3600	53	0.00	61	65	23.44	17.14	67.31	22.70 +	15.
Cc	1	(untitled)	1	1	B	696	3600	35	0.00	54	86	28.81	27.10	15.98	3.09	12.
Cx	1	(untitled)				1184	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1992 <	3600	48	0.00	90	11	26.55	20.74	41.65	18.53 +	23.
Dc	1	(untitled)	2	2	B	812 <	3600	22	0.00	78	27	35.08	32.79	31.00	5.62 +	14.
Dx	1	(untitled)				1061	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			152	1800	80	0.00	8	1084	6.14	0.09	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	41	1	8920	20.70	17.70	0.82	100	0
	2	(untitled)		1	C	50	11000	41	1	8920	22.70	17.70	0.82	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	823.92	72.15	11.42	37.34	7.41	635.44	36.42	44.05	715.91
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.16	0.34	3.86	0.00	54.77	0.00	0.00	54.77
TOTAL	825.32	76.31	10.82	41.20	7.41	690.21	36.42	44.05	770.68

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A8 - 2032 DO SOMETHING
D8 - 2032 DO SOMETHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	154	154
Ac	1	2639	2639
Ax	1	254	254
B	1	1233	1233
Bc	1	696	696
Bx	1	2097	2097
C	1	1277	1277
Cc	1	696	696
Cx	1	1233	1233
D	1	2016	2016
Dc	1	877	877
Dx	1	1096	1096
13	1	154	154

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	444	98	735	0	0	0	0
	2	568	0	130	1318	0	0	0	0
	3	82	46	0	26	0	0	0	0
	4	583	606	26	18	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	444
	8		1	3	C/1, Dc/1, Ax/1	Normal	98
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	82
	17		3	4	13/1, A/1, Bx/1	Normal	26
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	26
	25		4	2	B/1, Cc/1, Dx/1	Normal	606
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	568
	31		2	3	D/1, Ax/1	Normal	130
	137		4	1	B/1, Cx/1	Normal	583
	140		2	4	D/1, Ac/1, Bx/1	Normal	1318
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	46
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	735
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	18

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	23, 83

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	90	23	33	1	7
	2	✓	2	A	28	83	55	1	7

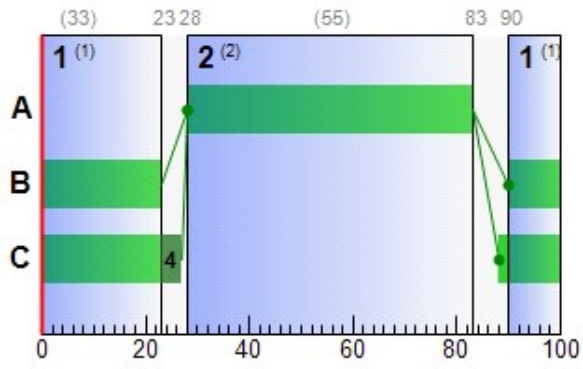
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	28	83	55
	B	1	✓	90	23	33
	C	1	✓	88	27	39

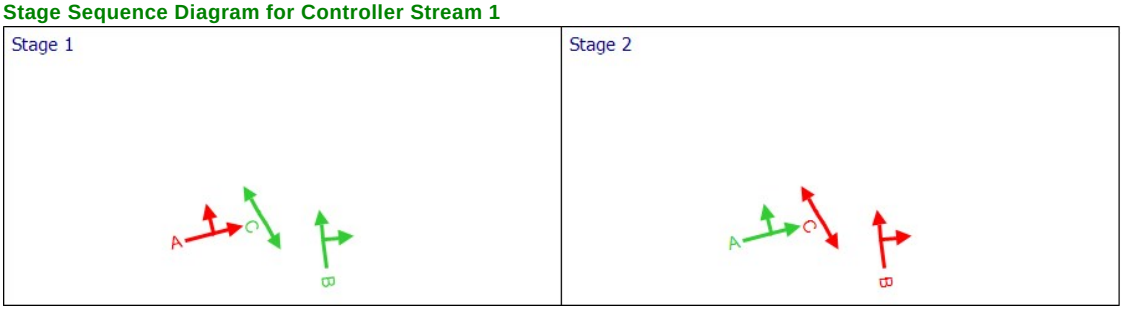
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	28	83	55
Cc	1	1	1	B	90	23	33

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	0, 52

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	57	0	23	1	7
	2	✓	2	A	5	52	47	1	7

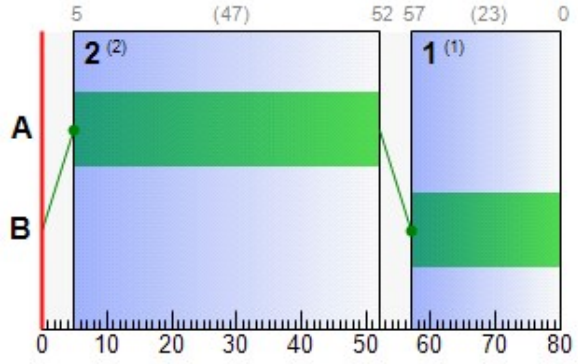
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	5	52	47
	B	1	✓	57	0	23

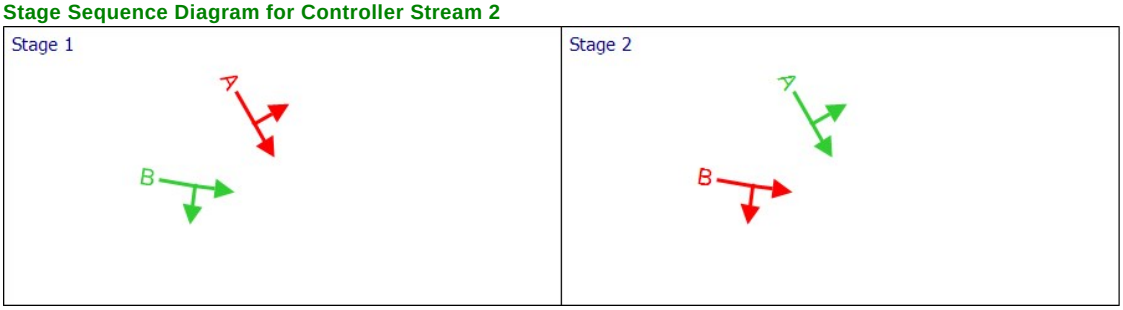
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	5	52	47
Dc	1	2	2	B	57	0	23

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	66, 12, 28

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	29	66	37	1	7
	2	✓	2	A	71	12	71	1	7
	3	✓	3	C	23	28	5	1	5

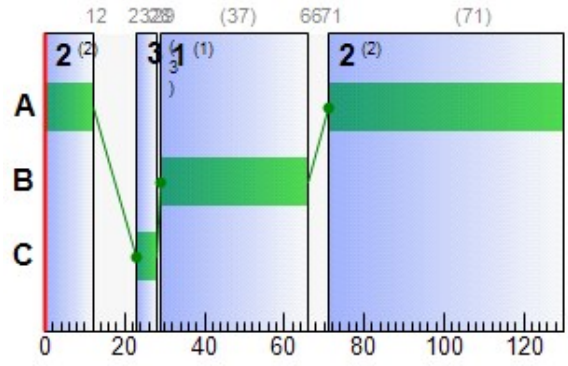
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	71	12	71
	B	1	✓	29	66	37
	C	1	✓	23	28	5

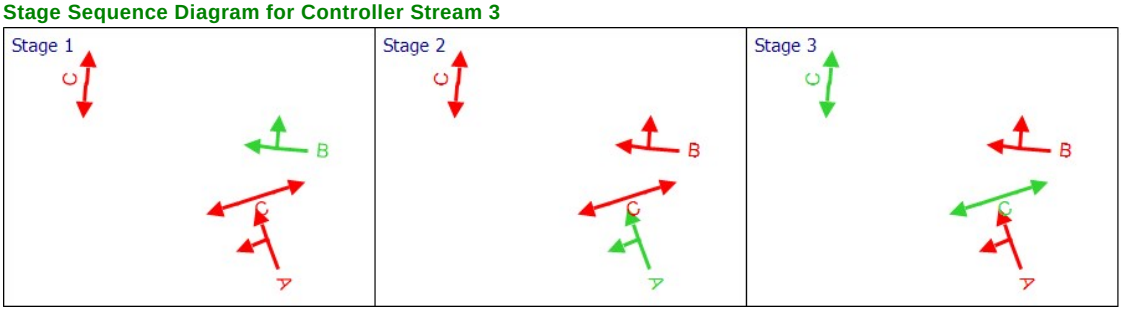
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	71	12	71
Bc	1	4	3	B	29	66	37

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3406	154	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2639	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	254	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	62	62	1233	3600	71	21.14	30.64	88.09	102.81	10.36	113.16
	Bc	1	66	51	696	3600	37	43.86	4.82	96.35	120.40	1.67	128.45
	Bx	1	0	Unrestricted	2097	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	63	58	1277	3600	55	16.54	24.67	135.00	83.32	10.74	94.06
	Cc	1	57	76	696	3600	33	29.05	3.15	63.08	79.76	1.42	86.24
	Cx	1	0	Unrestricted	1233	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	93	7	2016	3600	47	25.19	20.46	121.45	200.34	11.43	211.77
	Dc	1	81	23	877	3600	23	33.36	5.96	119.29	115.41	3.34	165.59
	Dx	1	0	Unrestricted	1096	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	9	1069	154	1800	80	0.09	0.00	0.05	0.06	0.00	0.06

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	154	154	0		5400	5400	3		3406	0.00	80	80
	Ac	1	2639	2639	0		Unrestricted	Unrestricted	0		Unrestricted	0.36	80	80
	Ax	1	254	254	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	80	80
	B	1	1233	1233	0		3600	1994	62		62	0.00	71	72
	Bc	1	696	696	0		3600	1052	66		51	1.15	37	38
	Bx	1	2097	2097	0		Unrestricted	Unrestricted	0		Unrestricted	0.24	80	80
	C	1	1277	1277	0		3600	2016	63		58	0.00	55	56
	Cc	1	696	696	0		3600	1224	57		76	1.07	33	34
	Cx	1	1233	1233	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	130	13
	D	1	2016	2016	0		3600	2160	93		7	0.46	47	48
	Dc	1	877	877	0		3600	1080	81		23	1.07	23	24
	Dx	1	1096	1096	0		Unrestricted	Unrestricted	0		Unrestricted	0.58	100	10
	13	1	154	154	0		1800	1800	9		1069	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	21.14	6.74	0.50	102.81	102.81	66.99	812.24	13.80	10.36	10.36
	Bc	1	2.40	43.86	7.80	0.68	120.40	120.40	19.15	115.38	17.91	1.67	1.67
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	16.54	5.32	0.55	83.32	83.32	67.09	837.14	19.56	10.74	10.74
	Cc	1	1.80	29.05	5.22	0.40	79.76	79.76	16.30	100.00	13.48	1.42	1.42
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	25.19	8.15	5.96	200.34	200.34	45.23	652.17	259.58	11.43	11.43
	Dc	1	2.40	33.36	6.31	1.81	115.41	115.41	30.39	187.50	79.06	3.34	3.34
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.09	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			1.00	0.00	1.00	
	B	1	0.00	30.64	34.78	88.09	0.00	0.00	0.00	0.50	20.36	0.00	0.00	0.00	
	Bc	1	5.00	4.82	5.00	96.35	0.00	0.13	6.38	0.65	18.82	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	24.67	18.27	135.00	0.61	0.00	0.00	0.55	16.15	0.00	0.00	0.00	
	Cc	1	5.00	3.15	5.00	63.08	0.00	0.10	5.05	0.38	13.33	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	20.46	16.84	121.45	1.33	0.00	0.00	5.96	26.68	0.00	0.00	0.00	
	Dc	1	5.00	5.96	5.00	119.29	0.11	0.94	46.83	1.80	15.93	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.05	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.70	0.09	29.86	2.12
	Ac	1	39.59	1.32	30.00	1.80
	Ax	1	25.40	0.85	30.00	12.00
	B	1	123.30	11.35	10.86	33.14
	Bc	1	13.92	8.92	1.56	46.12
	Bx	1	209.70	6.99	30.00	12.00
	C	1	67.08	8.10	8.28	22.84
	Cc	1	10.44	5.94	1.76	30.75
	Cx	1	126.18	4.21	30.00	12.28
	D	1	97.62	17.36	5.62	31.00
	Dc	1	17.54	8.70	2.02	35.69
	Dx	1	109.60	3.65	30.00	12.00
	13	1	7.76	0.26	29.54	6.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	30.64	0.50	20.37	1.00	0.00	113.16	113.16
	Bc	1	0.00	0.00	✓	4.82	0.65	18.82	1.00	6.38	122.07	128.45
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	24.67	0.55	16.15	1.00	0.00	94.06	94.06
	Cc	1	0.00	0.00	✓	3.15	0.38	13.33	1.00	5.05	81.18	86.24
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	20.72	6.22	26.94	1.00	0.00	211.77	211.77
	Dc	1	0.00	0.00	✓	5.94	1.78	15.91	1.00	46.83	118.76	165.59
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.06	0.06

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	39	18.91	0.85	3.73	3.73
		2	1	50	11000	39	18.91	0.85	3.73	3.73
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4290	1		8480	0.00	39	39
		2	50	50	0		11000	4290	1		8480	0.00	39	39
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	18.91	0.26	0.00	3.73	3.73
		2	5.00	18.91	0.26	0.00	3.73	3.73
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.85	10.00	8.47	0.00	0.00	0.00
		2	0.85	10.00	8.47	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.85	1.00	0.00	3.73	3.73
		2	0.00	0.00	0.85	1.00	0.00	3.73	3.73
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	25/03/2022 08:21:20	25/03/2022 08:21:32	08:00	120	854.58	53.33	93.33	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	93	0	14422	896	12.34	702.10	38.97	799.33

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	98	46.69	55.25	55.25

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	14722	14722	0		93		7	994	1000

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.01	13.04	43.43	9.90	757.35	757.35	21.11	2704.43	403.38	38.97	38.97

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	135.00	58.27	17.00	0.00	17.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	852.22	81.94	10.40

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	58.27	0.00	796.31	854.58

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	34.8	70.5	72.3	0.0	0.0	0.0	0.0
	2	91.2	0.0	43.0	44.8	0.0	0.0	0.0	0.0
	3	66.7	97.1	0.0	20.3	0.0	0.0	0.0	0.0
	4	45.4	75.9	111.6	113.4	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	87.5	0.0	0.0
	6	0.0	0.0	0.0	0.0	87.5	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	444		34.84		444	34.84
8	1	3	98		70.54		98	70.54
16	3	1	82		66.66		82	66.66
17	3	4	26		20.25		26	20.25
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	26		111.58		26	111.58
25	4	2	606		75.89		606	75.89
26	2	1	568		91.21		568	91.21
31	2	3	130		43.00		130	43.00
32	6	5		50		87.49	50	87.49
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		87.49	50	87.49
137	4	1	583		45.42		583	45.42
140	2	4	1318		44.80		1318	44.80
141	3	2	46		97.12		46	97.12
142	1	4	735		72.34		735	72.34
143	4	4	18		113.38		18	113.38

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			154	5400	80	0.00	3	3406	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2639	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				254	Unrestricted	80	1.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1233	3600	71	0.00	62	62	33.14	21.14	66.99	30.64	20.
Bc	1	(untitled)	4	3	B	696	3600	37	0.00	66	51	46.12	43.86	19.15	4.82	18.
Bx	1	(untitled)				2097	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1277 <	3600	55	0.00	63	58	22.84	16.54	67.09	24.67 +	16.
Cc	1	(untitled)	1	1	B	696	3600	33	0.00	57	76	30.75	29.05	16.30	3.15	13.
Cx	1	(untitled)				1233	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	2016 <	3600	47	0.00	93	7	31.00	25.19	45.23	20.46 +	26.
Dc	1	(untitled)	2	2	B	877 <	3600	23	0.00	81	23	35.69	33.36	30.39	5.96 +	15.
Dx	1	(untitled)				1096	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			154	1800	80	0.00	9	1069	6.14	0.09	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	39	1	8480	21.91	18.91	0.85	100	0
	2	(untitled)		1	C	50	11000	39	1	8480	23.91	18.91	0.85	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	850.82	77.74	10.94	39.54	9.90	702.10	38.97	58.27	799.33
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.20	0.33	3.89	0.00	55.25	0.00	0.00	55.25
TOTAL	852.22	81.94	10.40	43.43	9.90	757.35	38.97	58.27	854.58

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A9 - 2042 DO NOTHING
D9 - 2042 DO NOTHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	158	158
Ac	1	2642	2642
Ax	1	254	254
B	1	1249	1249
Bc	1	693	693
Bx	1	2107	2107
C	1	1215	1215
Cc	1	719	719
Cx	1	1223	1223
D	1	2058	2058
Dc	1	838	838
Dx	1	1096	1096
13	1	158	158

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	422	93	700	0	0	0	0
	2	562	0	134	1362	0	0	0	0
	3	83	48	0	27	0	0	0	0
	4	578	626	27	18	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	422
	8		1	3	C/1, Dc/1, Ax/1	Normal	93
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	83
	17		3	4	13/1, A/1, Bx/1	Normal	27
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	27
	25		4	2	B/1, Cc/1, Dx/1	Normal	626
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	562
	31		2	3	D/1, Ax/1	Normal	134
	137		4	1	B/1, Cx/1	Normal	578
	140		2	4	D/1, Ac/1, Bx/1	Normal	1362
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	48
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	700
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	18

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	35, 93

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

	To		
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

	To		
From		1	2
	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	0	35	35	1	7
	2	✓	2	A	40	93	53	1	7

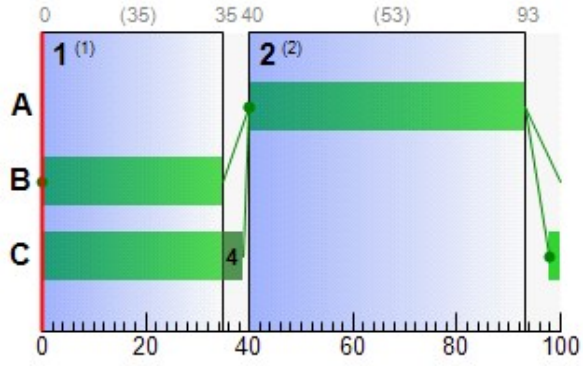
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	40	93	53
	B	1	✓	0	35	35
	C	1	✓	98	39	41

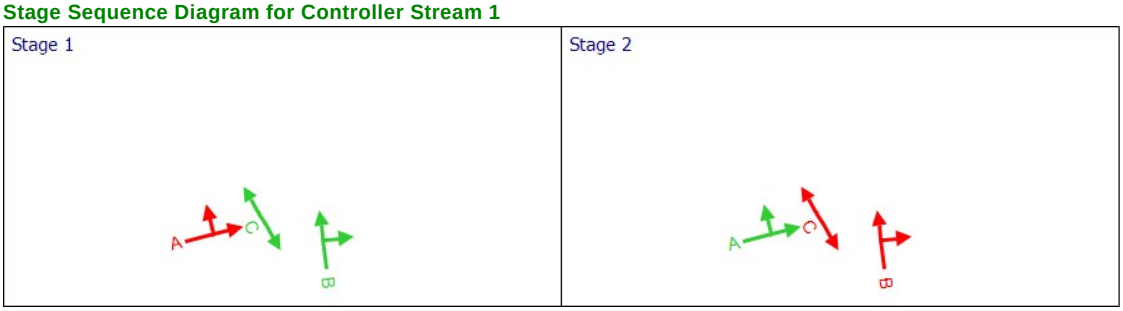
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	40	93	53
Cc	1	1	1	B	0	35	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	39, 12

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	17	39	22	1	7
	2	✓	2	A	44	12	48	1	7

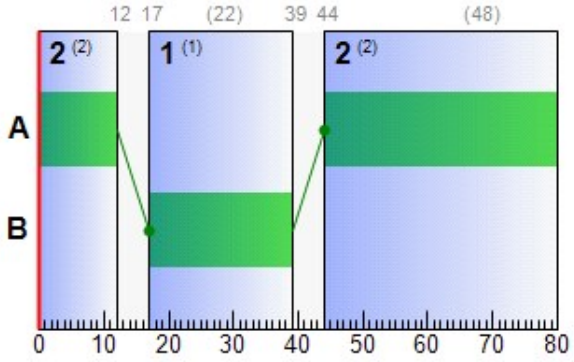
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	44	12	48
	B	1	✓	17	39	22

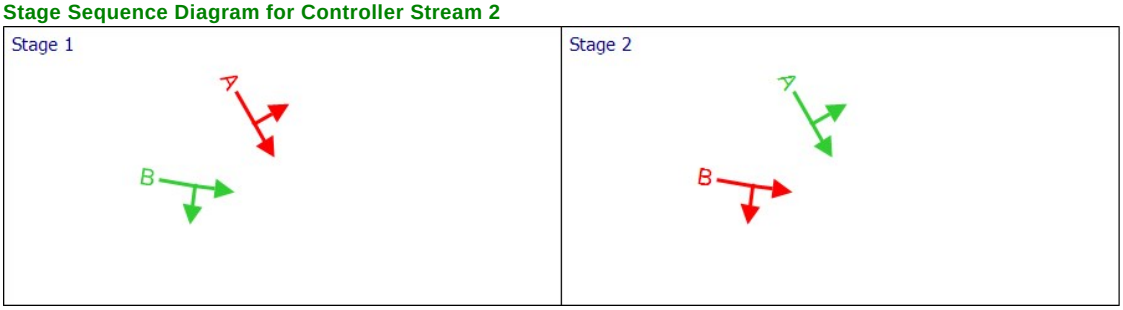
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	44	12	48
Dc	1	2	2	B	17	39	22

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	46, 122, 8

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	9	46	37	1	7
	2	✓	2	A	51	122	71	1	7
	3	✓	3	C	3	8	5	1	5

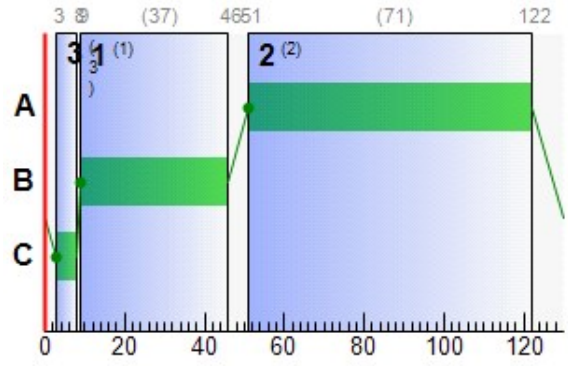
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	51	122	71
	B	1	✓	9	46	37
	C	1	✓	3	8	5

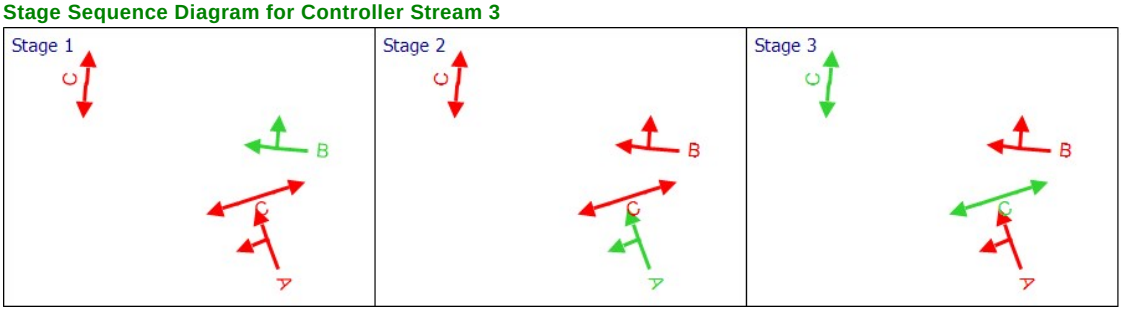
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	51	122	71
Bc	1	4	3	B	9	46	37

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3318	158	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2642	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	254	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	63	60	1249	3600	71	21.32	31.05	89.28	105.05	10.57	115.61
	Bc	1	66	52	693	3600	37	43.77	4.81	96.13	119.65	1.67	128.29
	Bx	1	0	Unrestricted	2107	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	63	60	1215	3600	53	17.51	23.81	130.29	83.92	10.44	94.36
	Cc	1	55	80	719	3600	35	27.42	3.12	62.49	77.77	1.41	83.15
	Cx	1	0	Unrestricted	1223	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	93	7	2058	3600	48	24.47	20.47	121.51	198.65	11.44	210.09
	Dc	1	81	24	838	3600	22	34.14	5.93	118.65	112.84	3.32	162.79
	Dx	1	0	Unrestricted	1096	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	9	1039	158	1800	80	0.10	0.00	0.05	0.06	0.00	0.06

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	158	158	0		5400	5400	3		3318	0.00	80	80
	Ac	1	2642	2642	0		Unrestricted	Unrestricted	0		Unrestricted	0.35	80	80
	Ax	1	254	254	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	80	80
	B	1	1249	1249	0		3600	1994	63		60	0.00	71	72
	Bc	1	693	693	0		3600	1052	66		52	1.14	37	38
	Bx	1	2107	2107	0		Unrestricted	Unrestricted	0		Unrestricted	0.24	80	80
	C	1	1215	1215	0		3600	1944	63		60	0.00	53	54
	Cc	1	719	719	0		3600	1296	55		80	1.04	35	36
	Cx	1	1223	1223	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	130	13
	D	1	2058	2058	0		3600	2205	93		7	0.45	48	49
	Dc	1	838	838	0		3600	1035	81		24	1.08	22	23
	Dx	1	1096	1096	0		Unrestricted	Unrestricted	0		Unrestricted	0.59	100	10
	13	1	158	158	0		1800	1800	9		1039	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	21.32	6.87	0.52	105.05	105.05	67.48	828.32	14.46	10.57	10.57
	Bc	1	2.40	43.77	7.76	0.67	119.65	119.65	19.19	115.38	17.60	1.67	1.67
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	17.51	5.39	0.52	83.92	83.92	68.50	813.68	18.62	10.44	10.44
	Cc	1	1.80	27.42	5.11	0.37	77.77	77.77	15.64	100.00	12.43	1.41	1.41
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	24.47	8.02	5.97	198.65	198.65	44.33	652.17	260.17	11.44	11.44
	Dc	1	2.40	34.14	6.16	1.78	112.84	112.84	31.64	187.50	77.60	3.32	3.32
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.10	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			1.00	0.00	1.00	
	B	1	0.00	31.05	34.78	89.28	0.00	0.00	0.00	0.52	20.65	0.00	0.00	0.00	
	Bc	1	5.00	4.81	5.00	96.13	0.00	0.14	6.97	0.64	18.73	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	23.81	18.27	130.29	0.48	0.00	0.00	0.52	16.04	0.00	0.00	0.00	
	Cc	1	5.00	3.12	5.00	62.49	0.00	0.08	3.98	0.35	13.33	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	D	1	0.00	20.47	16.84	121.51	1.30	0.00	0.00	5.97	26.55	0.00	0.00	0.00	
	Dc	1	5.00	5.93	5.00	118.65	0.11	0.93	46.63	1.77	15.50	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.05	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.77	0.09	29.86	2.12
	Ac	1	39.63	1.32	30.00	1.80
	Ax	1	25.40	0.85	30.00	12.00
	B	1	124.90	11.56	10.80	33.32
	Bc	1	13.86	8.86	1.56	46.04
	Bx	1	210.70	7.02	30.00	12.00
	C	1	63.83	8.04	7.94	23.81
	Cc	1	10.79	5.82	1.85	29.13
	Cx	1	125.15	4.17	30.00	12.28
	D	1	99.65	17.31	5.76	30.28
	Dc	1	16.76	8.49	1.97	36.46
	Dx	1	109.60	3.65	30.00	12.00
	13	1	7.96	0.27	29.53	6.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	31.06	0.52	20.65	1.00	0.00	115.61	115.61
	Bc	1	0.00	0.00	✓	4.80	0.64	18.73	1.00	6.97	121.32	128.29
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	23.81	0.52	16.05	1.00	0.00	94.36	94.36
	Cc	1	0.00	0.00	✓	3.12	0.35	13.33	1.00	3.98	79.18	83.15
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	20.72	6.23	26.81	1.00	0.00	210.09	210.09
	Dc	1	0.00	0.00	✓	5.91	1.74	15.48	1.00	46.63	116.16	162.79
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.06	0.06

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	41	17.70	0.82	3.49	3.49
		2	1	50	11000	41	17.70	0.82	3.49	3.49
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4510	1		8920	0.00	41	41
		2	50	50	0		11000	4510	1		8920	0.00	41	41
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	17.70	0.25	0.00	3.49	3.49
		2	5.00	17.70	0.25	0.00	3.49	3.49
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.82	10.00	8.19	0.00	0.00	0.00
		2	0.82	10.00	8.19	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.29	0.70	20.70
		2	0.30	0.32	0.95	22.70
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.82	1.00	0.00	3.49	3.49
		2	0.00	0.00	0.82	1.00	0.00	3.49	3.49
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	25/03/2022 08:21:32	25/03/2022 08:21:45	08:00	120	849.12	53.01	93.33	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	93	0	14410	896	12.28	697.94	38.84	794.35

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	102	46.28	54.77	54.77

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	14710	14710	0		93		7	998	1004

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.02	12.97	43.17	9.84	752.71	752.71	21.06	2697.06	400.88	38.84	38.84

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	130.29	57.57	17.00	0.00	17.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	852.39	81.62	10.44

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	57.57	0.00	791.55	849.12

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	35.8	72.3	74.1	0.0	0.0	0.0	0.0
	2	90.4	0.0	42.3	44.1	0.0	0.0	0.0	0.0
	3	66.6	95.4	0.0	20.3	0.0	0.0	0.0	0.0
	4	45.6	74.5	110.9	112.7	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	86.3	0.0	0.0
	6	0.0	0.0	0.0	0.0	86.3	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	422		35.81		422	35.81
8	1	3	93		72.27		93	72.27
16	3	1	83		66.57		83	66.57
17	3	4	27		20.26		27	20.26
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	27		110.91		27	110.91
25	4	2	626		74.45		626	74.45
26	2	1	562		90.40		562	90.40
31	2	3	134		42.28		134	42.28
32	6	5		50		86.28	50	86.28
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		86.28	50	86.28
137	4	1	578		45.60		578	45.60
140	2	4	1362		44.08		1362	44.08
141	3	2	48		95.42		48	95.42
142	1	4	700		74.07		700	74.07
143	4	4	18		112.71		18	112.71

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			158	5400	80	0.00	3	3318	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2642	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				254	Unrestricted	80	1.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1249	3600	71	0.00	63	60	33.32	21.32	67.48	31.05	20.
Bc	1	(untitled)	4	3	B	693	3600	37	0.00	66	52	46.04	43.77	19.19	4.81	18.
Bx	1	(untitled)				2107	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1215 <	3600	53	0.00	63	60	23.81	17.51	68.50	23.81 +	16.
Cc	1	(untitled)	1	1	B	719	3600	35	0.00	55	80	29.13	27.42	15.64	3.12	13.
Cx	1	(untitled)				1223	Unrestricted	130	8.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	2058 <	3600	48	0.00	93	7	30.28	24.47	44.33	20.47 +	26.
Dc	1	(untitled)	2	2	B	838 <	3600	22	0.00	81	24	36.46	34.14	31.64	5.93 +	15.
Dx	1	(untitled)				1096	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			158	1800	80	0.00	9	1039	6.14	0.10	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	41	1	8920	20.70	17.70	0.82	100	0
	2	(untitled)		1	C	50	11000	41	1	8920	22.70	17.70	0.82	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	850.99	77.45	10.99	39.32	9.84	697.94	38.84	57.57	794.35
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.16	0.34	3.86	0.00	54.77	0.00	0.00	54.77
TOTAL	852.39	81.62	10.44	43.17	9.84	752.71	38.84	57.57	849.12

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A10 - 2042 DO SOMETHING
D10 - 2042 DO SOMETHING, *

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3846	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			2046
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	80

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	160	160
Ac	1	2724	2724
Ax	1	262	262
B	1	1273	1273
Bc	1	719	719
Bx	1	2165	2165
C	1	1317	1317
Cc	1	719	719
Cx	1	1273	1273
D	1	2082	2082
Dc	1	904	904
Dx	1	1132	1132
13	1	160	160

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	458	101	758	0	0	0	0
	2	586	0	134	1362	0	0	0	0
	3	85	48	0	27	0	0	0	0
	4	602	626	27	18	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	458
	8		1	3	C/1, Dc/1, Ax/1	Normal	101
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	85
	17		3	4	13/1, A/1, Bx/1	Normal	27
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	27
	25		4	2	B/1, Cc/1, Dx/1	Normal	626
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	586
	31		2	3	D/1, Ax/1	Normal	134
	137		4	1	B/1, Cx/1	Normal	602
	140		2	4	D/1, Ac/1, Bx/1	Normal	1362
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	48
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	758
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	18

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	Manual	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	21, 80

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	87	21	34	1	7
	2	✓	2	A	26	80	54	1	7

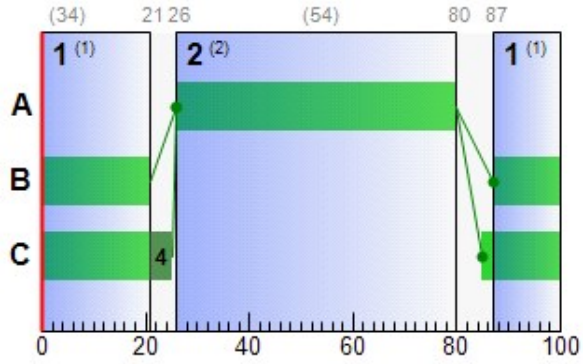
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	26	80	54
	B	1	✓	87	21	34
	C	1	✓	85	25	40

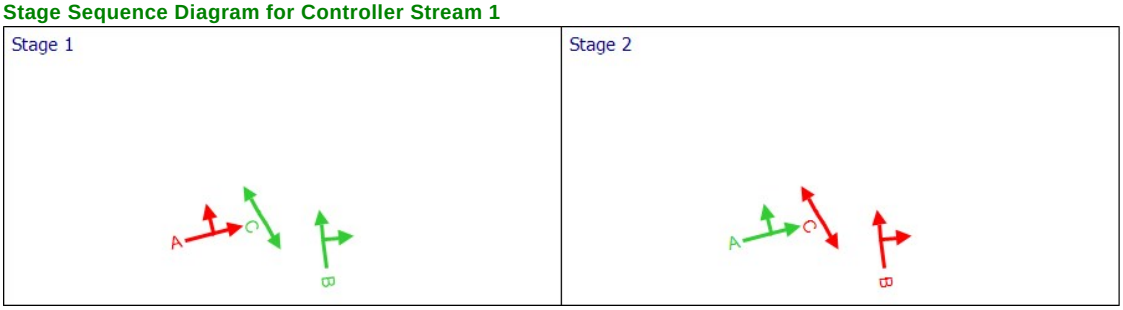
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	26	80	54
Cc	1	1	1	B	87	21	34

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	80

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	41, 13

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	18	41	23	1	7
	2	✓	2	A	46	13	47	1	7

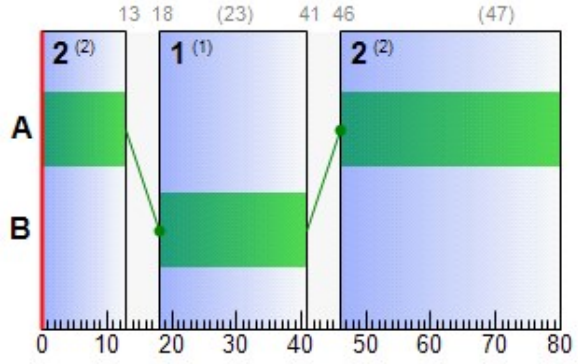
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	46	13	47
	B	1	✓	18	41	23

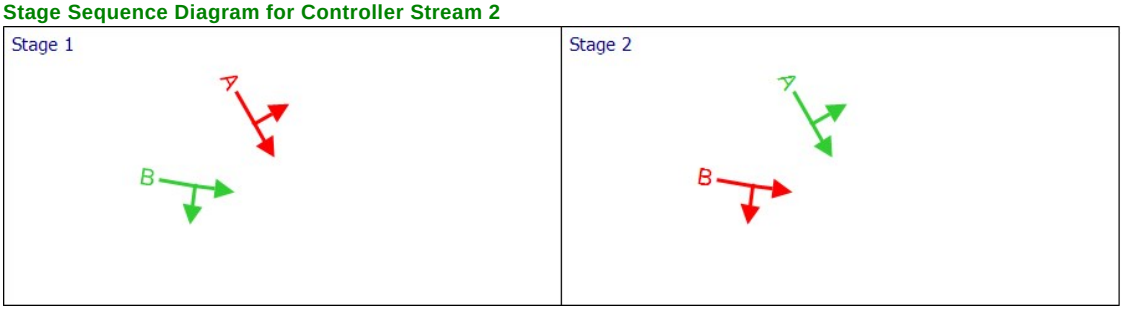
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	46	13	47
Dc	1	2	2	B	18	41	23

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	45, 122, 8

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	9	45	36	1	7
	2	✓	2	A	50	122	72	1	7
	3	✓	3	C	3	8	5	1	5

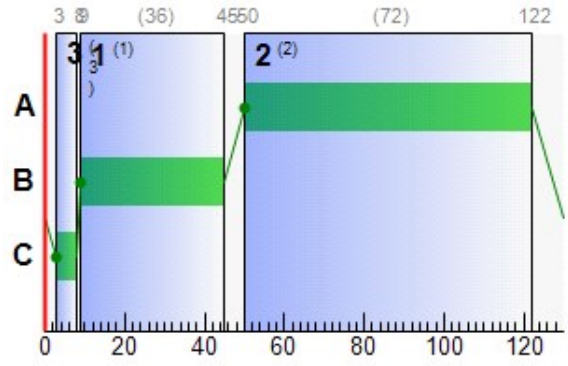
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	50	122	72
	B	1	✓	9	45	36
	C	1	✓	3	8	5

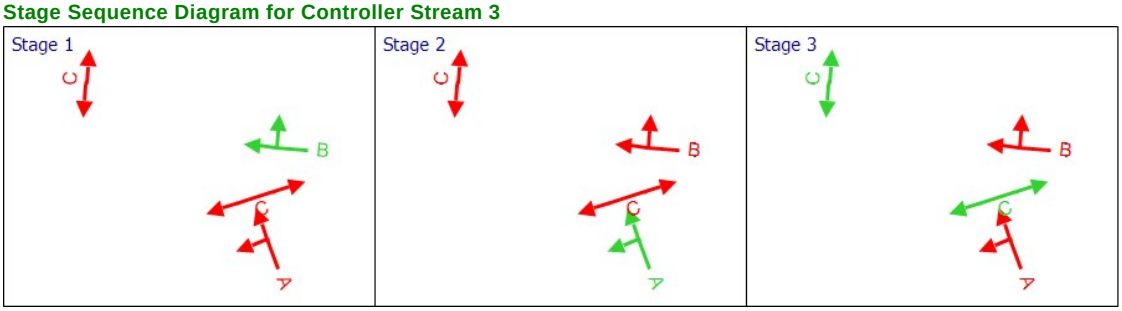
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	50	122	72
Bc	1	4	3	B	9	45	36

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	3	3275	160	5400	80	0.01	0.00	0.01	0.01	0.00	0.01
	Ac	1	0	Unrestricted	2724	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	262	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	63	59	1273	3600	72	20.84	31.65	91.00	104.66	10.69	115.35
	Bc	1	66	52	719	3846	36	44.80	4.80	95.99	127.06	1.67	137.82
	Bx	1	0	Unrestricted	2165	Unrestricted	80	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	67	50	1317	3600	54	17.76	26.27	143.75	92.29	11.56	103.85
	Cc	1	57	75	719	3600	34	28.40	3.16	63.17	80.56	1.42	87.13
	Cx	1	0	Unrestricted	1273	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	96	4	2082	3600	47	32.53	24.53	145.63	267.15	13.54	280.69
	Dc	1	84	19	904	3600	23	35.05	6.39	127.73	124.98	3.57	190.07
	Dx	1	0	Unrestricted	1132	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	9	1025	160	1800	80	0.10	0.00	0.05	0.06	0.00	0.06

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A	1	160	160	0		5400	5400	3		3275	0.00	80	80
	Ac	1	2724	2724	0		Unrestricted	Unrestricted	0		Unrestricted	0.32	80	80
	Ax	1	262	262	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	80	80
	B	1	1273	1273	0		3600	2022	63		59	0.00	72	73
	Bc	1	719	719	0		3846	1095	66		52	1.17	36	37
	Bx	1	2165	2165	0		Unrestricted	Unrestricted	0		Unrestricted	0.22	80	80
	C	1	1317	1317	0		3600	1980	67		50	0.00	54	55
	Cc	1	719	719	0		3600	1260	57		75	1.06	34	35
	Cx	1	1273	1273	0		Unrestricted	Unrestricted	0		Unrestricted	0.62	130	13
	D	1	2082	2082	0		3600	2160	96		4	0.49	47	48
	Dc	1	904	904	0		3600	1080	84		19	1.09	23	24
	Dx	1	1132	1132	0		Unrestricted	Unrestricted	0		Unrestricted	0.56	100	10
	13	1	160	160	0		1800	1800	9		1025	0.00	80	80

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	2.11	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	20.84	6.84	0.53	104.66	104.66	66.97	837.75	14.74	10.69	10.69
	Bc	1	2.40	44.80	8.29	0.66	127.06	127.06	18.47	115.38	17.42	1.67	1.67
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	17.76	5.84	0.66	92.29	92.29	70.01	898.49	23.58	11.56	11.56
	Cc	1	1.80	28.40	5.27	0.40	80.56	80.56	15.80	100.00	13.63	1.42	1.42
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	32.53	8.78	10.04	267.15	267.15	51.88	652.17	427.96	13.54	13.54
	Dc	1	2.40	35.05	6.57	2.23	124.98	124.98	31.49	187.50	97.18	3.57	3.57
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.10	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	0.00	6.11	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			1.00	0.00	1.00	
	B	1	0.00	31.65	34.78	91.00	0.00	0.00	0.00	0.53	20.69	0.00	0.00	0.00	
	Bc	1	5.00	4.80	5.00	95.99	0.00	0.18	9.09	0.63	19.61	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	26.27	18.27	143.75	0.91	0.00	0.00	0.66	17.12	0.00	0.00	0.00	
	Cc	1	5.00	3.16	5.00	63.17	0.00	0.10	5.15	0.38	13.56	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			7.00	0.00	7.00	
	D	1	0.00	24.53	16.84	145.63	3.90	0.00	0.00	10.04	31.43	0.00	0.00	0.00	
	Dc	1	5.00	6.39	5.00	127.73	0.17	1.23	61.52	2.22	16.78	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.00	8.76	0.05	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	2.81	0.09	29.86	2.12
	Ac	1	40.86	1.36	30.00	1.80
	Ax	1	26.20	0.87	30.00	12.00
	B	1	127.30	11.61	10.96	32.84
	Bc	1	14.38	9.40	1.53	47.08
	Bx	1	216.50	7.22	30.00	12.00
	C	1	69.18	8.81	7.86	24.07
	Cc	1	10.79	6.01	1.79	30.11
	Cx	1	130.27	4.34	30.00	12.28
	D	1	100.81	22.17	4.55	38.34
	Dc	1	18.08	9.40	1.92	37.41
	Dx	1	113.20	3.77	30.00	12.00
	13	1	8.06	0.27	29.52	6.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	31.65	0.53	20.69	1.00	0.00	115.35	115.35
	Bc	1	0.00	0.00	✓	4.80	0.63	19.60	1.00	9.09	128.72	137.82
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	26.27	0.66	17.12	1.00	0.00	103.85	103.85
	Cc	1	0.00	0.00	✓	3.16	0.38	13.56	1.00	5.15	81.98	87.13
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	25.63	11.14	32.54	1.00	0.00	280.69	280.69
	Dc	1	0.00	0.00	✓	6.35	2.19	16.75	1.00	61.52	128.55	190.07
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.00			1.00	0.00	0.06	0.06

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	1	50	11000	40	18.30	0.83	3.61	3.61
		2	1	50	11000	40	18.30	0.83	3.61	3.61
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
08:00-09:00	1	1	50	50	0		11000	4400	1		8700	0.00	40	40
		2	50	50	0		11000	4400	1		8700	0.00	40	40
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	3.00	18.30	0.25	0.00	3.61	3.61
		2	5.00	18.30	0.25	0.00	3.61	3.61
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	0.83	10.00	8.33	0.00	0.00	0.00
		2	0.83	10.00	8.33	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.20	0.30	0.68	21.30
		2	0.30	0.32	0.93	23.30
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	0.83	1.00	0.00	3.61	3.61
		2	0.00	0.00	0.83	1.00	0.00	3.61	3.61
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	25/03/2022 08:21:45	25/03/2022 08:21:58	08:00	120	969.99	59.98	96.39	D/1	0	0	D/1	13/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	96	0	14890	896	13.57	796.76	42.45	914.98

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	12	300	100	46.48	55.01	55.01

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
08:00-09:00	15190	15190	0		96		4	996	1002

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.01	14.22	45.46	14.52	851.76	851.76	22.29	2791.30	594.51	42.45	42.45

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	145.63	75.77	16.00	0.00	16.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	879.84	89.52	9.83

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	75.77	0.00	894.22	969.99

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	36.1	73.5	75.3	0.0	0.0	0.0	0.0
	2	99.5	0.0	50.3	52.1	0.0	0.0	0.0	0.0
	3	67.6	97.4	0.0	20.3	0.0	0.0	0.0	0.0
	4	45.1	74.9	112.4	114.2	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	86.9	0.0	0.0
	6	0.0	0.0	0.0	0.0	86.9	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	458		36.07		458	36.07
8	1	3	101		73.48		101	73.48
16	3	1	85		67.61		85	67.61
17	3	4	27		20.26		27	20.26
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	27		112.36		27	112.36
25	4	2	626		74.95		626	74.95
26	2	1	586		99.50		586	99.50
31	2	3	134		50.34		134	50.34
32	6	5		50		86.88	50	86.88
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		86.88	50	86.88
137	4	1	602		45.12		602	45.12
140	2	4	1362		52.14		1362	52.14
141	3	2	48		97.44		48	97.44
142	1	4	758		75.28		758	75.28
143	4	4	18		114.16		18	114.16

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			160	5400	80	0.00	3	3275	2.12	0.01	0.00	0.00	
Ac	1	(untitled)	3			2724	Unrestricted	80	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				262	Unrestricted	80	1.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1273	3600	72	0.00	63	59	32.84	20.84	66.97	31.65	20.
Bc	1	(untitled)	4	3	B	719	3846	36	0.00	66	52	47.08	44.80	18.47	4.80	19.
Bx	1	(untitled)				2165	Unrestricted	80	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1317 <	3600	54	0.00	67	50	24.07	17.76	70.01	26.27 +	17.
Cc	1	(untitled)	1	1	B	719	3600	34	0.00	57	75	30.11	28.40	15.80	3.16	13.
Cx	1	(untitled)				1273	Unrestricted	130	7.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	2082 <	3600	47	0.00	96	4	38.34	32.53	51.88	24.53 +	31.
Dc	1	(untitled)	2	2	B	904 <	3600	23	0.00	84	19	37.41	35.05	31.49	6.39 +	16.
Dx	1	(untitled)				1132	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			160	1800	80	0.00	9	1025	6.14	0.10	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	40	1	8700	21.30	18.30	0.83	100	0
	2	(untitled)		1	C	50	11000	40	1	8700	23.30	18.30	0.83	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	878.44	85.34	10.29	41.59	14.52	796.76	42.45	75.77	914.98
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.18	0.33	3.87	0.00	55.01	0.00	0.00	55.01
TOTAL	879.84	89.52	9.83	45.46	14.52	851.76	42.45	75.77	969.99

< = adjusted flow warning (upstream links/traffic streams are over-saturated)

** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*

^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%

+ = average link/traffic stream excess queue is greater than 0

P.I. = PERFORMANCE INDEX

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Junction 5 - AM-PM.j9
Path: M:\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 5
Report generation date: 25/03/2022 08:19:08

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	JUNCTION 5 - 2019									
Arm 1	D1	0.4	12.44	0.31	B	D2	0.6	8.30	0.36	A
Arm 2		1.3	4.74	0.57	A		5.7	14.95	0.85	B
Arm 3		1.3	4.82	0.57	A		3.0	11.10	0.75	B
Arm 4		53.8	77.69	1.01	F		3.4	9.43	0.78	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

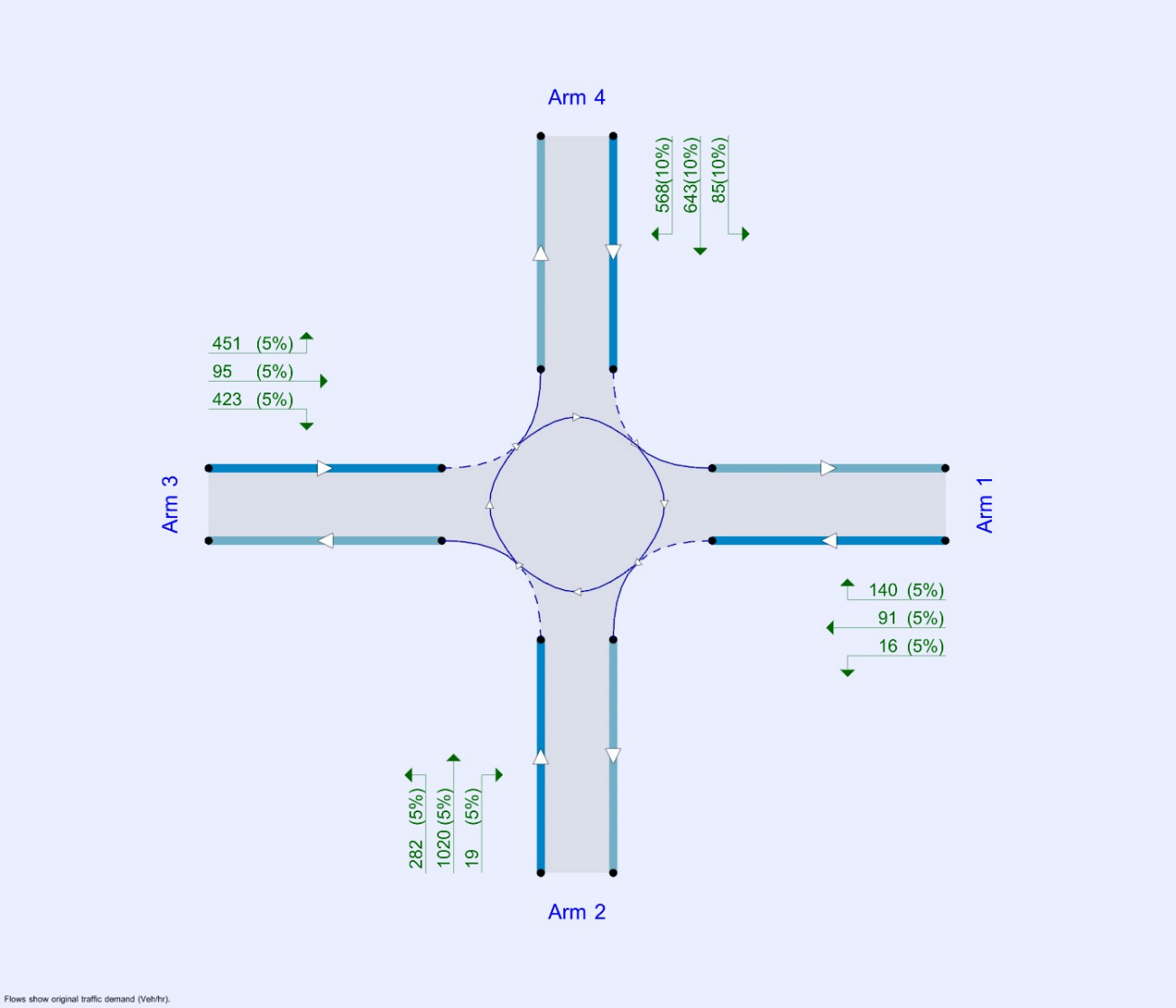
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	01/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Single time segment only
D1	2019	AM	FLAT	08:00	09:00	60	✓
D2	2019	PM	FLAT	17:00	18:00	60	✓

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	JUNCTION 5	100.000

JUNCTION 5 - 2019, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	37.11	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	untitled	
2	untitled	
3	untitled	
4	untitled	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	5.00	7.00	6.5	50.0	50.0	25.0	
2	7.00	8.00	1.0	50.0	50.0	25.0	
3	7.00	7.33	1.0	60.0	50.0	25.0	
4	7.00	7.70	1.0	35.0	50.0	25.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.661	1905
2	0.735	2296
3	0.732	2278
4	0.727	2270

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Single time segment only
D1	2019	AM	FLAT	08:00	09:00	60	✓

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	129	100.000
2		✓	1024	100.000
3		✓	996	100.000
4		✓	1687	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	22	68	39
	2	22	15	474	513
	3	76	574	0	346
	4	110	1116	461	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.31	12.44	0.4	B
2	0.57	4.74	1.3	A
3	0.57	4.82	1.3	A
4	1.01	77.69	53.8	F

Main Results for each time segment

08:00 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	129	2115	418	0.309	129	0.4	12.438	B
2	1024	553	1781	0.575	1023	1.3	4.736	A
3	996	588	1739	0.573	995	1.3	4.825	A
4	1687	686	1664	1.014	1633	53.8	77.689	F

JUNCTION 5 - 2019, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.67	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Single time segment only
D2	2019	PM	FLAT	17:00	18:00	60	✓

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	247	100.000
2		✓	1353	100.000
3		✓	969	100.000
4		✓	1296	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	16	91	140
	2	19	32	282	1020
	3	95	423	0	451
	4	85	643	568	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	10	10	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.36	8.30	0.6	A
2	0.85	14.95	5.7	B
3	0.75	11.10	3.0	B
4	0.78	9.43	3.4	A

Main Results for each time segment

17:00 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	247	1661	680	0.363	246	0.6	8.296	A
2	1353	797	1583	0.855	1347	5.7	14.948	B
3	969	1206	1287	0.753	966	3.0	11.100	B
4	1296	567	1671	0.776	1293	3.4	9.429	A

TRANSYT 15

Version: 15.5.2.7994

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 5 - PM.t16
Path: M:\Projects\17\17-088\Design\Traffic Modelling\MODELLING MAY 2021\Junction 5
Report generation date: 25/03/2022 08:30:43

»A1 - 2023 DO NOTHING : D1 - 2023 DO NOTHING, * :
»A2 - 2023 DO SOMETHING : D2 - 2023 DO SOMETHING, * :
»A3 - 2025 DO NOTHING : D3 - 2025 DO NOTHING, * :
»A4 - 2025 DO SOMETHING : D4 - 2025 DO SOMETHING, * :
»A5 - 2027 DO NOTHING : D5 - 2027 DO NOTHING, * :
»A6 - 2027 DO SOMETHING : D6 - 2027 DO SOMETHING, * :
»A7 - 2032 DO NOTHING : D7 - 2032 DO NOTHING, * :
»A8 - 2032 DO SOMETHING : D8 - 2032 DO SOMETHING, * :
»A9 - 2042 DO NOTHING : D9 - 2042 DO NOTHING, * :
»A10 - 2042 DO SOMETHING : D10 - 2042 DO SOMETHING, * :

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓	✓	✓	✓	✓	✓	✓		

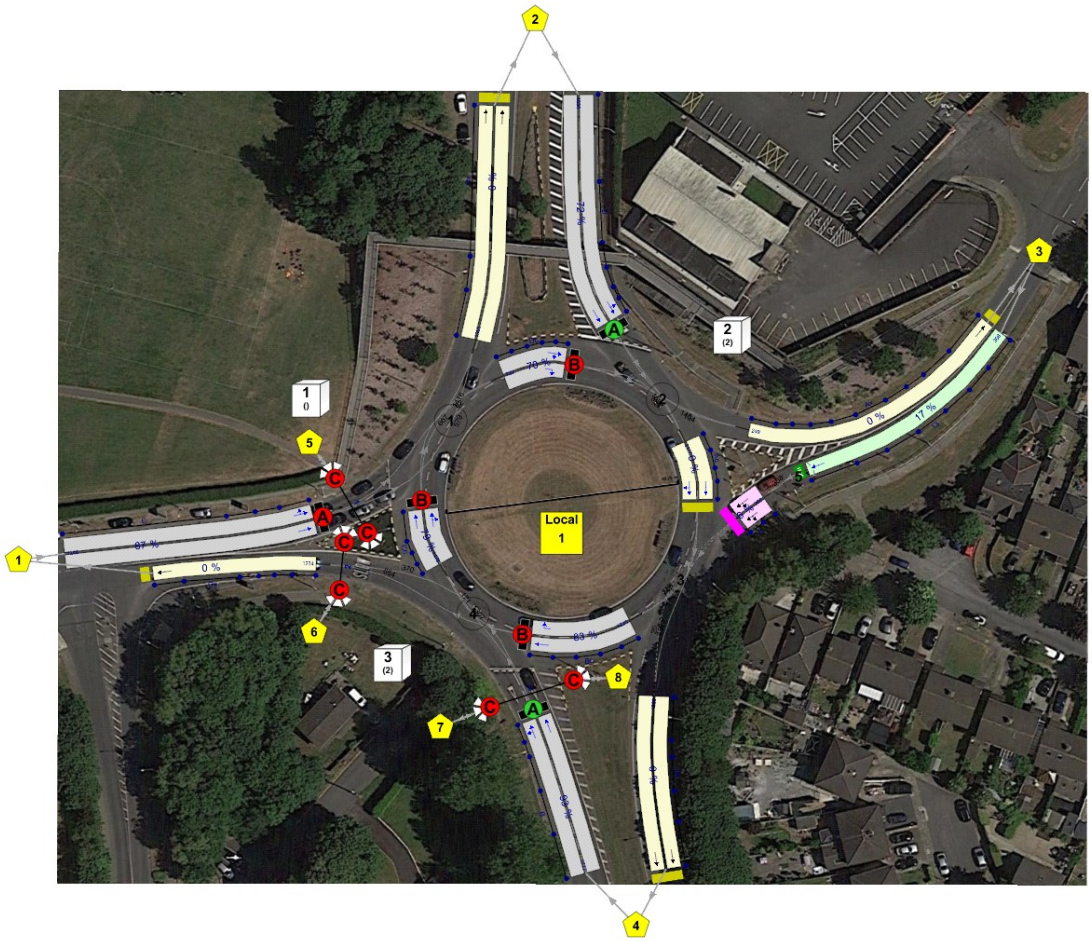
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
10, 10
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2023 DO NOTHING
D1 - 2023 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	25/03/2022 08:27:50	25/03/2022 08:28:05	17:00	120	829.78	53.79	77.77	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO NOTHING		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	263	263
Ac	1	1777	1777
Ax	1	212	212
B	1	1443	1443
Bc	1	852	852
Bx	1	1188	1188
C	1	1033	1033
Cc	1	1291	1291
Cx	1	1004	1004
D	1	1383	1383
Dc	1	606	606
Dx	1	1718	1718
13	1	263	263

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	481	101	451	0	0	0	0
	2	606	0	91	686	0	0	0	0
	3	97	149	0	17	0	0	0	0
	4	301	1088	20	34	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	481
	8		1	3	C/1, Dc/1, Ax/1	Normal	101
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	97
	17		3	4	13/1, A/1, Bx/1	Normal	17
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	20
	25		4	2	B/1, Cc/1, Dx/1	Normal	1088
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	606
	31		2	3	D/1, Ax/1	Normal	91
	137		4	1	B/1, Cx/1	Normal	301
	140		2	4	D/1, Ac/1, Bx/1	Normal	686
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	149
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	451
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	34

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	26, 75

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	82	26	64	1	7
	2	✓	2	A	31	75	44	1	7

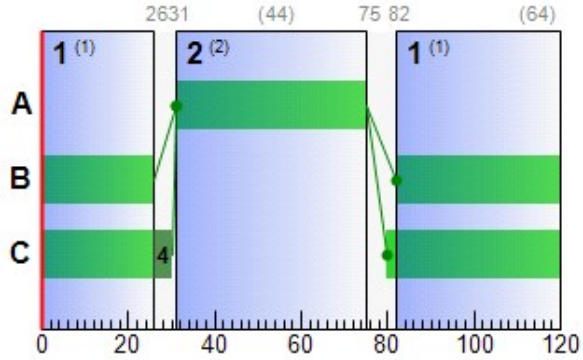
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	31	75	44
	B	1	✓	82	26	64
	C	1	✓	80	30	70

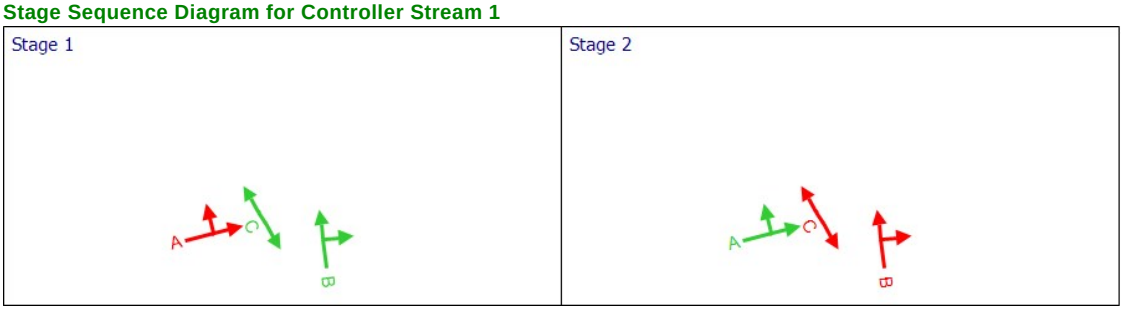
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	31	75	44
Cc	1	1	1	B	82	26	64

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	50, 18

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	23	50	27	1	7
	2	✓	2	A	55	18	63	1	7

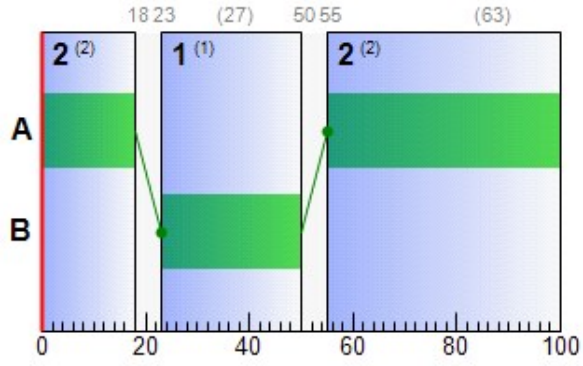
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	55	18	63
	B	1	✓	23	50	27

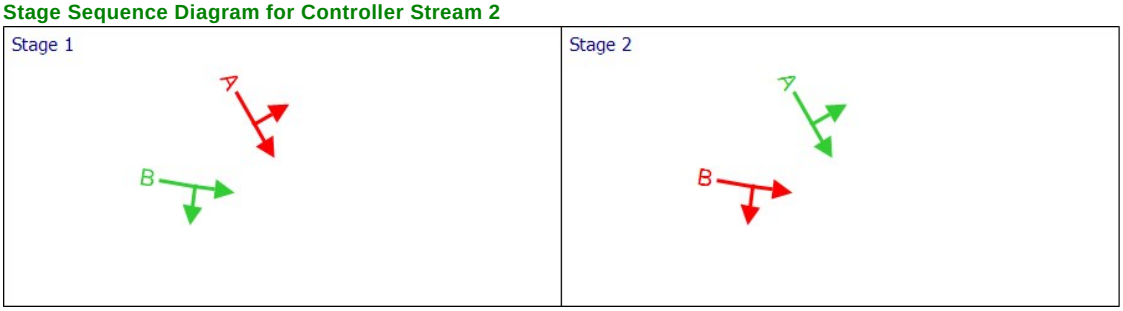
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	55	18	63
Dc	1	2	2	B	23	50	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	11, 82, 98

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	99	11	42	1	7
	2	✓	2	A	16	82	66	1	7
	3	✓	3	C	93	98	5	1	5

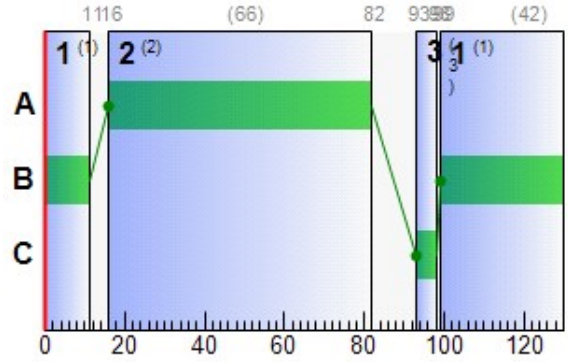
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	16	82	66
	B	1	✓	99	11	42
	C	1	✓	93	98	5

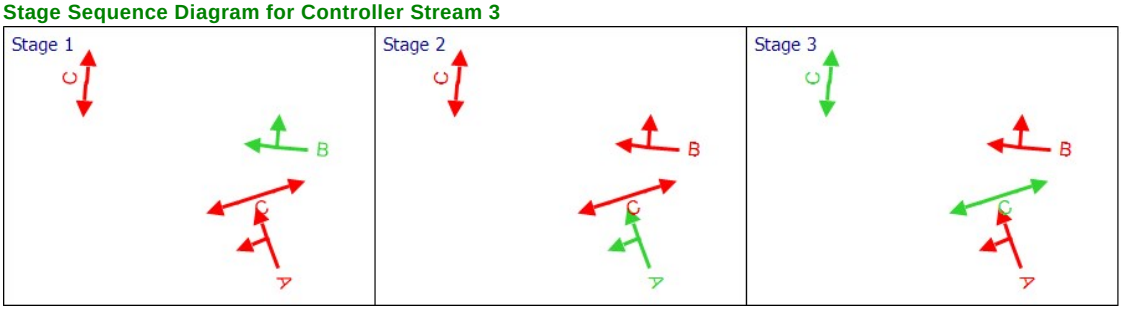
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	16	82	66
Bc	1	4	3	B	99	11	42

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	5	1953	263	5400	100	0.02	0.00	0.02	0.02	0.00	0.02
	Ac	1	0	Unrestricted	1777	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	212	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	78	29	1443	3600	66	28.84	43.43	124.87	164.14	14.70	178.85
	Bc	1	72	40	852	3600	42	42.07	5.08	101.50	141.40	1.76	152.67
	Bx	1	0	Unrestricted	1188	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	77	31	1033	3600	44	37.16	31.36	171.63	151.42	11.56	162.97
	Cc	1	66	51	1291	3600	64	21.51	3.43	68.58	109.52	1.29	121.87
	Cx	1	0	Unrestricted	1004	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	60	67	1383	3600	63	11.69	14.94	88.71	63.80	6.74	70.54
	Dc	1	60	66	606	3600	27	34.03	4.62	92.44	81.34	2.09	90.72
	Dx	1	0	Unrestricted	1718	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	15	584	263	1800	100	0.17	0.01	0.14	0.18	0.00	0.18

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	263	263	0		5400	5400	5		1953	0.00	100	10
	Ac	1	1777	1777	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	100	10
	Ax	1	212	212	0		Unrestricted	Unrestricted	0		Unrestricted	0.61	100	10
	B	1	1443	1443	0		3600	1855	78		29	0.00	66	67
	Bc	1	852	852	0		3600	1191	72		40	1.13	42	43
	Bx	1	1188	1188	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	100	10
	C	1	1033	1033	0		3600	1350	77		31	0.00	44	45
	Cc	1	1291	1291	0		3600	1950	66		51	0.82	64	65
	Cx	1	1004	1004	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	130	13
	D	1	1383	1383	0		3600	2304	60		67	0.20	63	64
	Dc	1	606	606	0		3600	1008	60		66	1.02	27	28
	Dx	1	1718	1718	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	120	12
	13	1	263	263	0		1800	1800	15		584	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	28.84	10.21	1.35	164.14	164.14	81.26	1135.50	37.06	14.70	14.70
	Bc	1	2.40	42.07	9.03	0.93	141.40	141.40	16.47	115.38	24.97	1.76	1.76
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	37.16	9.43	1.23	151.42	151.42	89.21	884.98	36.61	11.56	11.56
	Cc	1	1.80	21.51	7.05	0.67	109.52	109.52	7.96	83.33	19.46	1.29	1.29
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	11.69	4.04	0.45	63.80	63.80	38.89	521.67	16.14	6.74	6.74
	Dc	1	2.40	34.03	5.25	0.48	81.34	81.34	27.44	150.00	16.29	2.09	2.09
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.17	0.00	0.01	0.18	0.18	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.02	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	43.43	34.78	124.87	0.75	0.00	0.00	1.35	26.60	0.00	0.00	0.00	
	Bc	1	5.00	5.08	5.00	101.50	0.00	0.19	9.51	0.91	21.97	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	31.36	18.27	171.63	2.54	0.00	0.00	1.23	22.75	0.00	0.00	0.00	
	Cc	1	5.00	3.43	5.00	68.58	0.00	0.22	11.05	0.65	20.73	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	D	1	0.00	14.94	16.84	88.71	0.00	0.00	0.00	0.45	16.18	0.00	0.00	0.00	
	Dc	1	5.00	4.62	5.00	92.44	0.00	0.15	7.29	0.46	12.91	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.01	8.76	0.14	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.62	0.16	29.76	2.12
	Ac	1	26.66	0.89	30.00	1.80
	Ax	1	21.20	0.71	30.00	12.00
	B	1	144.30	16.37	8.82	40.84
	Bc	1	17.04	10.50	1.62	44.38
	Bx	1	118.80	3.96	30.00	12.00
	C	1	54.26	12.47	4.35	43.47
	Cc	1	19.37	8.34	2.32	23.27
	Cx	1	102.74	3.42	30.00	12.28
	D	1	66.97	6.72	9.96	17.51
	Dc	1	12.12	6.11	1.98	36.28
	Dx	1	171.80	5.73	30.00	12.00
	13	1	13.24	0.45	29.17	6.21

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	43.44	1.35	26.61	1.00	0.00	178.85	178.85
	Bc	1	0.00	0.00	✓	5.07	0.90	21.97	1.00	9.51	143.16	152.67
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	31.37	1.24	22.76	1.00	0.00	162.97	162.97
	Cc	1	0.00	0.00	✓	3.43	0.65	20.73	1.00	11.05	110.81	121.87
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	14.94	0.45	16.18	1.00	0.00	70.54	70.54
	Dc	1	0.00	0.00	✓	4.62	0.45	12.91	1.00	7.29	83.43	90.72
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.01			1.00	0.00	0.18	0.18

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	70	10.63	0.69	2.10	2.10
		2	1	50	11000	70	10.63	0.69	2.10	2.10
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6417	1		12733	0.00	70	70
		2	50	50	0		11000	6417	1		12733	0.00	70	70
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	10.63	0.15	0.00	2.10	2.10
		2	5.00	10.63	0.15	0.00	2.10	2.10
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.69	10.00	6.94	0.00	0.00	0.00
		2	0.69	10.00	6.94	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.19	1.06	13.63
		2	0.30	0.22	1.38	15.63
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.69	1.00	0.00	2.10	2.10
		2	0.00	0.00	0.69	1.00	0.00	2.10	2.10
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	25/03/2022 08:27:50	25/03/2022 08:28:05	17:00	120	829.78	53.79	77.77	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	78	0	13033	1056	13.85	711.82	38.13	777.80

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	160	43.93	51.98	51.98

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	13333	13333	0		78		29	1216	1222

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	14.52	48.67	5.12	763.80	763.80	22.81	2890.87	150.53	38.13	38.13

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	171.63	27.85	22.00	0.00	22.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	774.51	79.80	9.71

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	27.85	0.00	801.93	829.78

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.5	91.7	93.5	0.0	0.0	0.0	0.0
	2	76.0	0.0	29.5	31.3	0.0	0.0	0.0	0.0
	3	65.0	88.0	0.0	20.3	0.0	0.0	0.0	0.0
	4	53.1	76.1	112.4	114.2	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	79.2	0.0	0.0
	6	0.0	0.0	0.0	0.0	79.2	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	481		55.47		481	55.47
8	1	3	101		91.74		101	91.74
16	3	1	97		64.99		97	64.99
17	3	4	17		20.34		17	20.34
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	20		112.39		20	112.39
25	4	2	1088		76.11		1088	76.11
26	2	1	606		75.96		606	75.96
31	2	3	91		29.51		91	29.51
32	6	5		50		79.20	50	79.20
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		79.20	50	79.20
137	4	1	301		53.12		301	53.12
140	2	4	686		31.31		686	31.31
141	3	2	149		87.98		149	87.98
142	1	4	451		93.54		451	93.54
143	4	4	34		114.19		34	114.19

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			263	5400	100	0.00	5	1953	2.12	0.02	0.00	0.00	
Ac	1	(untitled)	3			1777	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				212	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1443 <	3600	66	0.00	78	29	40.84	28.84	81.26	43.43 +	26.
Bc	1	(untitled)	4	3	B	852 <	3600	42	0.00	72	40	44.38	42.07	16.47	5.08 +	21.
Bx	1	(untitled)				1188	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1033 <	3600	44	0.00	77	31	43.47	37.16	89.21	31.36 +	22.
Cc	1	(untitled)	1	1	B	1291	3600	64	0.00	66	51	23.27	21.51	7.96	3.43	20.
Cx	1	(untitled)				1004	Unrestricted	130	10.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1383	3600	63	0.00	60	67	17.51	11.69	38.89	14.94	16.
Dc	1	(untitled)	2	2	B	606	3600	27	0.00	60	66	36.28	34.03	27.44	4.62	12.
Dx	1	(untitled)				1718	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			263	1800	100	0.00	15	584	6.21	0.17	0.00	0.01	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	70	1	12733	13.63	10.63	0.69	100	0
	2	(untitled)		1	C	50	11000	70	1	12733	15.63	10.63	0.69	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	773.11	75.84	10.19	45.01	5.12	711.82	38.13	27.85	777.80
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.97	0.35	3.66	0.00	51.98	0.00	0.00	51.98
TOTAL	774.51	79.80	9.71	48.67	5.12	763.80	38.13	27.85	829.78

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - 2023 DO SOMETHING
D2 - 2023 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	25/03/2022 08:28:05	25/03/2022 08:28:20	17:00	120	850.23	55.09	79.44	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2023 DO SOMETHING		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2023 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	265	265
Ac	1	1806	1806
Ax	1	214	214
B	1	1452	1452
Bc	1	873	873
Bx	1	1198	1198
C	1	1055	1055
Cc	1	1291	1291
Cx	1	1034	1034
D	1	1402	1402
Dc	1	618	618
Dx	1	1728	1728
13	1	265	265

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	491	103	461	0	0	0	0
	2	625	0	91	686	0	0	0	0
	3	99	149	0	17	0	0	0	0
	4	310	1088	20	34	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	491
	8		1	3	C/1, Dc/1, Ax/1	Normal	103
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	99
	17		3	4	13/1, A/1, Bx/1	Normal	17
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	20
	25		4	2	B/1, Cc/1, Dx/1	Normal	1088
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	625
	31		2	3	D/1, Ax/1	Normal	91
	137		4	1	B/1, Cx/1	Normal	310
	140		2	4	D/1, Ac/1, Bx/1	Normal	686
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	149
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	461
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	34

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	101, 31

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	38	101	63	1	7
	2	✓	2	A	106	31	45	1	7

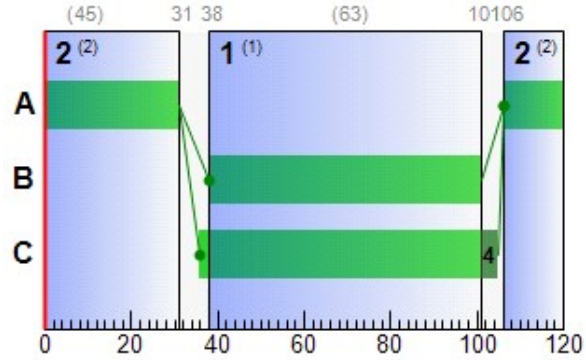
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	106	31	45
	B	1	✓	38	101	63
	C	1	✓	36	105	69

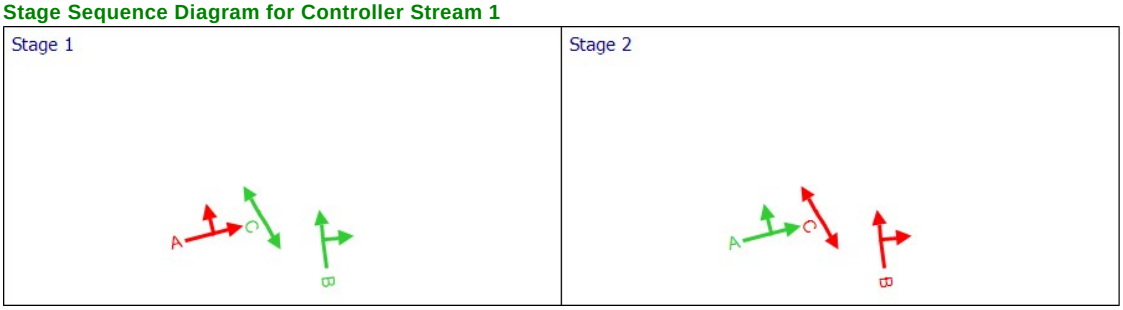
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	106	31	45
Cc	1	1	1	B	38	101	63

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	49, 17

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	22	49	27	1	7
	2	✓	2	A	54	17	63	1	7

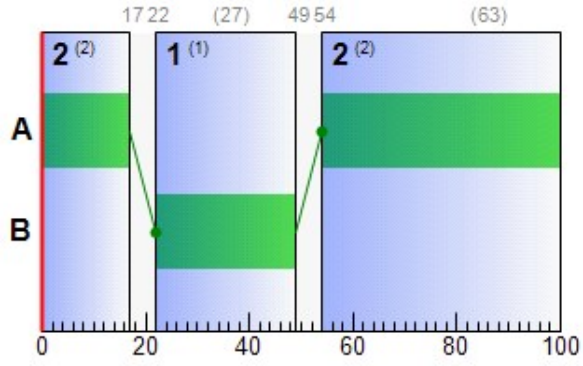
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	54	17	63
	B	1	✓	22	49	27

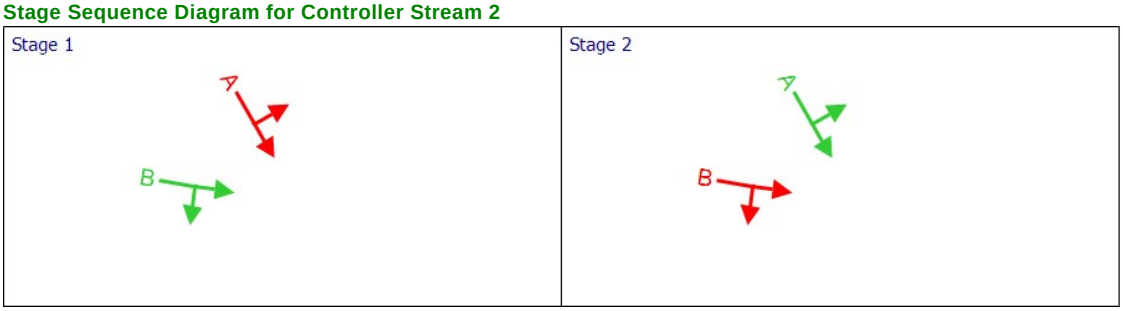
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	54	17	63
Dc	1	2	2	B	22	49	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	42, 112, 128

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	129	42	43	1	7
	2	✓	2	A	47	112	65	1	7
	3	✓	3	C	123	128	5	1	5

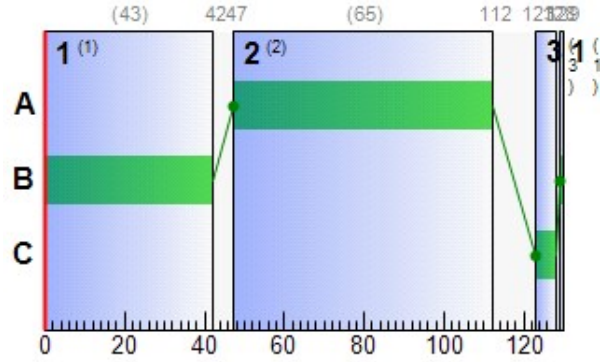
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	47	112	65
	B	1	✓	129	42	43
	C	1	✓	123	128	5

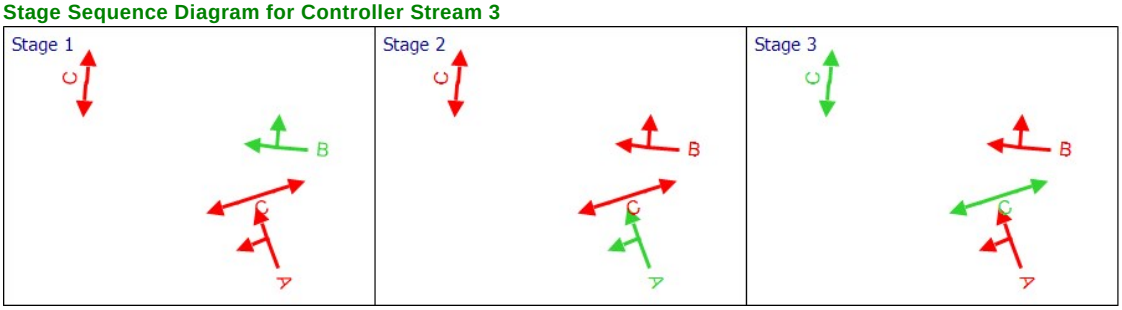
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	47	112	65
Bc	1	4	3	B	129	42	43

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	5	1938	265	5400	100	0.02	0.00	0.02	0.02	0.00	0.02
	Ac	1	0	Unrestricted	1806	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	214	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	79	26	1452	3600	65	30.16	44.67	128.44	172.76	15.15	187.91
	Bc	1	72	40	873	3600	43	41.42	5.08	101.61	142.62	1.76	154.20
	Bx	1	0	Unrestricted	1198	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	76	31	1055	3600	45	36.46	31.70	173.51	151.72	11.74	163.46
	Cc	1	67	49	1291	3600	63	22.35	3.47	69.42	113.80	1.30	127.45
	Cx	1	0	Unrestricted	1034	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	61	64	1402	3600	63	11.82	14.96	88.84	65.39	6.75	72.15
	Dc	1	61	63	618	3600	27	34.29	4.66	93.10	83.59	2.10	92.71
	Dx	1	0	Unrestricted	1728	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	15	579	265	1800	100	0.17	0.01	0.15	0.18	0.00	0.18

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	265	265	0		5400	5400	5		1938	0.00	100	10
	Ac	1	1806	1806	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	100	10
	Ax	1	214	214	0		Unrestricted	Unrestricted	0		Unrestricted	0.61	100	10
	B	1	1452	1452	0		3600	1828	79		26	0.00	65	66
	Bc	1	873	873	0		3600	1218	72		40	1.12	43	44
	Bx	1	1198	1198	0		Unrestricted	Unrestricted	0		Unrestricted	0.48	100	10
	C	1	1055	1055	0		3600	1380	76		31	0.00	45	46
	Cc	1	1291	1291	0		3600	1920	67		49	0.84	63	64
	Cx	1	1034	1034	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	130	13
	D	1	1402	1402	0		3600	2304	61		64	0.21	63	64
	Dc	1	618	618	0		3600	1008	61		63	1.03	27	28
	Dx	1	1728	1728	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	120	12
	13	1	265	265	0		1800	1800	15		579	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	30.16	10.65	1.52	172.76	172.76	83.21	1166.46	41.69	15.15	15.15
	Bc	1	2.40	41.42	9.11	0.94	142.62	142.62	16.10	115.38	25.13	1.76	1.76
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	36.46	9.46	1.23	151.72	151.72	88.72	899.57	36.46	11.74	11.74
	Cc	1	1.80	22.35	7.31	0.71	113.80	113.80	8.06	83.33	20.71	1.30	1.30
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	11.82	4.13	0.47	65.39	65.39	38.42	521.69	16.93	6.75	6.75
	Dc	1	2.40	34.29	5.37	0.51	83.59	83.59	27.10	150.00	17.46	2.10	2.10
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.17	0.00	0.01	0.18	0.18	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.02	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	44.67	34.78	128.44	0.97	0.00	0.00	1.52	27.33	0.00	0.00	0.00	
	Bc	1	5.00	5.08	5.00	101.61	0.00	0.20	9.81	0.91	22.25	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	31.70	18.27	173.51	2.62	0.00	0.00	1.23	22.91	0.00	0.00	0.00	
	Cc	1	5.00	3.47	5.00	69.42	0.00	0.25	12.35	0.69	21.13	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	D	1	0.00	14.96	16.84	88.84	0.00	0.00	0.00	0.47	16.43	0.00	0.00	0.00	
	Dc	1	5.00	4.66	5.00	93.10	0.00	0.14	7.03	0.49	13.19	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.01	8.76	0.15	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.65	0.16	29.76	2.12
	Ac	1	27.09	0.90	30.00	1.80
	Ax	1	21.40	0.71	30.00	12.00
	B	1	145.20	17.01	8.54	42.16
	Bc	1	17.46	10.60	1.65	43.72
	Bx	1	119.80	3.99	30.00	12.00
	C	1	55.42	12.53	4.42	42.76
	Cc	1	19.37	8.64	2.24	24.11
	Cx	1	105.81	3.53	30.00	12.28
	D	1	67.89	6.87	9.88	17.64
	Dc	1	12.36	6.27	1.97	36.54
	Dx	1	172.80	5.76	30.00	12.00
	13	1	13.35	0.46	29.17	6.22

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	44.68	1.53	27.34	1.00	0.00	187.91	187.91
	Bc	1	0.00	0.00	✓	5.08	0.91	22.25	1.00	9.81	144.39	154.20
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	31.71	1.23	22.92	1.00	0.00	163.46	163.46
	Cc	1	0.00	0.00	✓	3.47	0.69	21.13	1.00	12.35	115.10	127.45
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	14.96	0.47	16.43	1.00	0.00	72.15	72.15
	Dc	1	0.00	0.00	✓	4.65	0.49	13.19	1.00	7.03	85.69	92.71
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.01			1.00	0.00	0.18	0.18

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	69	11.05	0.71	2.18	2.18
		2	1	50	11000	69	11.05	0.71	2.18	2.18
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6325	1		12550	0.00	69	69
		2	50	50	0		11000	6325	1		12550	0.00	69	69
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.05	0.15	0.00	2.18	2.18
		2	5.00	11.05	0.15	0.00	2.18	2.18
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	2	0.71	10.00	7.08	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.20	1.02	14.05
		2	0.30	0.22	1.35	16.05
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.71	1.00	0.00	2.18	2.18
		2	0.00	0.00	0.71	1.00	0.00	2.18	2.18
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	25/03/2022 08:28:05	25/03/2022 08:28:20	17:00	120	850.23	55.09	79.44	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	79	0	13201	1056	14.02	730.08	38.80	798.08

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	158	44.07	52.15	52.15

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	13501	13501	0		79		26	1214	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	14.69	49.70	5.39	782.23	782.23	22.92	2936.43	158.38	38.80	38.80

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	173.51	29.19	22.00	0.00	22.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	783.99	81.42	9.63

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	29.19	0.00	821.04	850.23

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	54.8	91.3	93.1	0.0	0.0	0.0	0.0
	2	75.4	0.0	29.6	31.4	0.0	0.0	0.0	0.0
	3	64.3	88.2	0.0	20.3	0.0	0.0	0.0	0.0
	4	54.4	78.3	114.8	116.6	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	79.6	0.0	0.0
	6	0.0	0.0	0.0	0.0	79.6	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	491		54.76		491	54.76
8	1	3	103		91.30		103	91.30
16	3	1	99		64.34		99	64.34
17	3	4	17		20.34		17	20.34
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	20		114.81		20	114.81
25	4	2	1088		78.27		1088	78.27
26	2	1	625		75.44		625	75.44
31	2	3	91		29.64		91	29.64
32	6	5		50		79.63	50	79.63
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		79.63	50	79.63
137	4	1	310		54.44		310	54.44
140	2	4	686		31.44		686	31.44
141	3	2	149		88.17		149	88.17
142	1	4	461		93.10		461	93.10
143	4	4	34		116.61		34	116.61

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			265	5400	100	0.00	5	1938	2.12	0.02	0.00	0.00	
Ac	1	(untitled)	3			1806	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				214	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1452 <	3600	65	0.00	79	26	42.16	30.16	83.21	44.67 +	27.
Bc	1	(untitled)	4	3	B	873 <	3600	43	0.00	72	40	43.72	41.42	16.10	5.08 +	22.
Bx	1	(untitled)				1198	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1055 <	3600	45	0.00	76	31	42.76	36.46	88.72	31.70 +	22.
Cc	1	(untitled)	1	1	B	1291	3600	63	0.00	67	49	24.11	22.35	8.06	3.47	21.
Cx	1	(untitled)				1034	Unrestricted	130	10.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1402	3600	63	0.00	61	64	17.64	11.82	38.42	14.96	16.
Dc	1	(untitled)	2	2	B	618	3600	27	0.00	61	63	36.54	34.29	27.10	4.66	13.
Dx	1	(untitled)				1728	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			265	1800	100	0.00	15	579	6.22	0.17	0.00	0.01	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	69	1	12550	14.05	11.05	0.71	100	0
	2	(untitled)		1	C	50	11000	69	1	12550	16.05	11.05	0.71	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	782.59	77.44	10.11	46.03	5.39	730.08	38.80	29.19	798.08
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.98	0.35	3.67	0.00	52.15	0.00	0.00	52.15
TOTAL	783.99	81.42	9.63	49.70	5.39	782.23	38.80	29.19	850.23

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - 2025 DO NOTHING
D3 - 2025 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	25/03/2022 08:28:20	25/03/2022 08:28:34	17:00	120	881.46	57.02	81.52	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO NOTHING		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	272	272
Ac	1	1834	1834
Ax	1	220	220
B	1	1490	1490
Bc	1	879	879
Bx	1	1227	1227
C	1	1068	1068
Cc	1	1333	1333
Cx	1	1036	1036
D	1	1427	1427
Dc	1	627	627
Dx	1	1774	1774
13	1	272	272

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	497	105	466	0	0	0	0
	2	625	0	94	708	0	0	0	0
	3	100	154	0	18	0	0	0	0
	4	311	1123	21	35	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	497
	8		1	3	C/1, Dc/1, Ax/1	Normal	105
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	100
	17		3	4	13/1, A/1, Bx/1	Normal	18
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	21
	25		4	2	B/1, Cc/1, Dx/1	Normal	1123
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	625
	31		2	3	D/1, Ax/1	Normal	94
	137		4	1	B/1, Cx/1	Normal	311
	140		2	4	D/1, Ac/1, Bx/1	Normal	708
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	154
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	466
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	35

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	21, 70

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	77	21	64	1	7
	2	✓	2	A	26	70	44	1	7

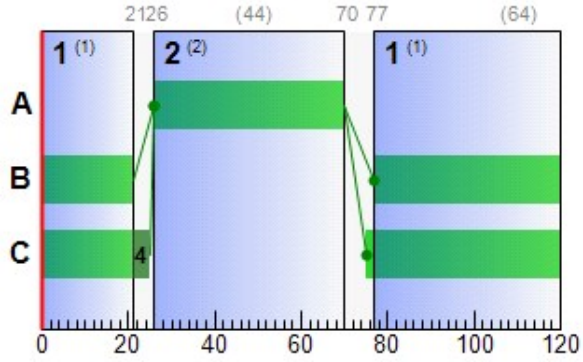
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	26	70	44
	B	1	✓	77	21	64
	C	1	✓	75	25	70

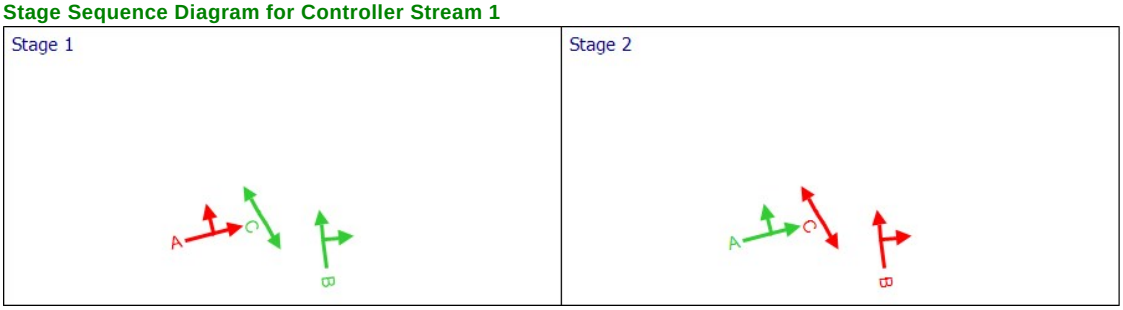
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	26	70	44
Cc	1	1	1	B	77	21	64

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	5, 73

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	78	5	27	1	7
	2	✓	2	A	10	73	63	1	7

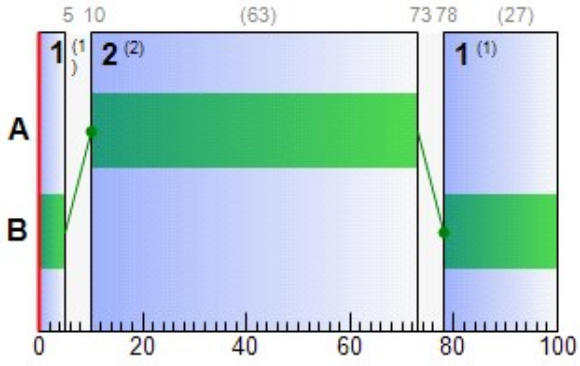
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	10	73	63
	B	1	✓	78	5	27

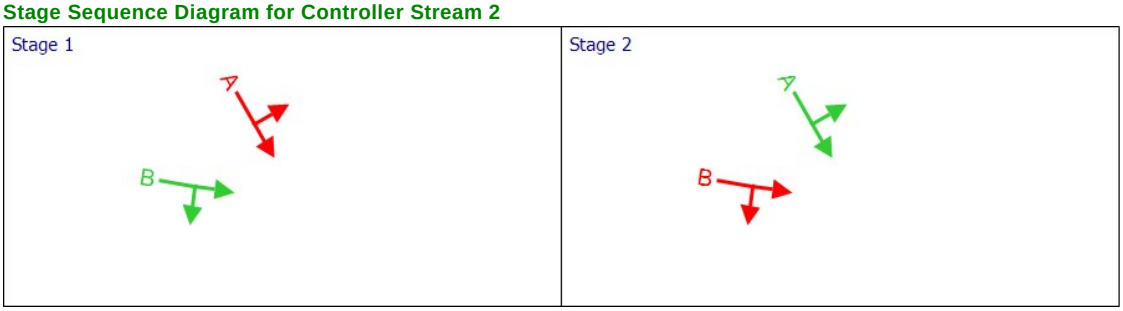
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	10	73	63
Dc	1	2	2	B	78	5	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	37, 107, 123

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	124	37	43	1	7
	2	✓	2	A	42	107	65	1	7
	3	✓	3	C	118	123	5	1	5

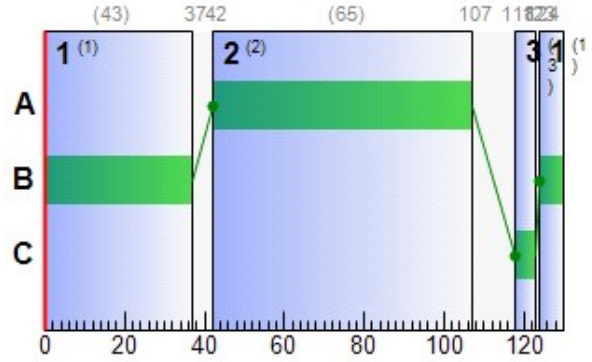
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	42	107	65
	B	1	✓	124	37	43
	C	1	✓	118	123	5

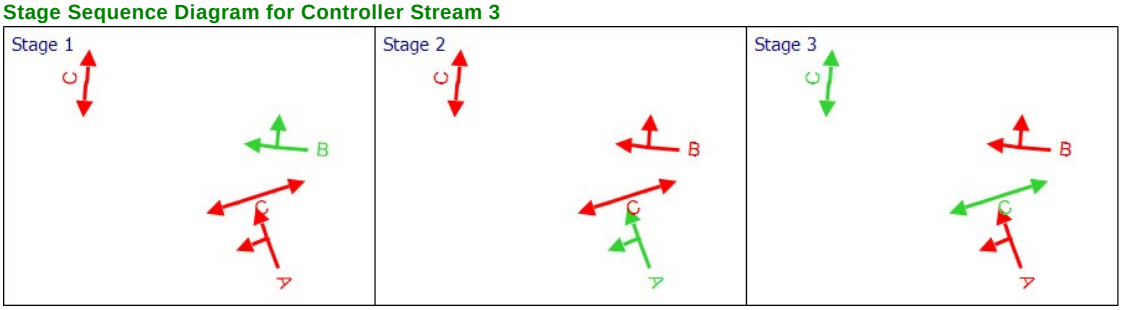
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	42	107	65
Bc	1	4	3	B	124	37	43

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	5	1885	272	5400	100	0.02	0.00	0.02	0.02	0.00	0.02
	Ac	1	0	Unrestricted	1834	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	220	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	82	23	1490	3600	65	31.16	46.89	134.80	183.13	15.89	199.02
	Bc	1	72	39	879	3600	43	41.59	5.11	102.20	144.21	1.77	156.76
	Bx	1	0	Unrestricted	1227	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	79	26	1068	3600	44	38.30	32.92	180.18	161.33	12.19	173.51
	Cc	1	68	46	1333	3600	64	22.06	3.52	70.39	115.98	1.32	130.77
	Cx	1	0	Unrestricted	1036	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	62	61	1427	3600	63	12.01	14.99	89.03	67.57	6.77	74.34
	Dc	1	62	61	627	3600	27	34.50	4.68	93.63	85.31	2.11	94.87
	Dx	1	0	Unrestricted	1774	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	15	562	272	1800	100	0.18	0.01	0.15	0.19	0.00	0.19

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	272	272	0		5400	5400	5		1885	0.00	100	10
	Ac	1	1834	1834	0		Unrestricted	Unrestricted	0		Unrestricted	0.56	100	10
	Ax	1	220	220	0		Unrestricted	Unrestricted	0		Unrestricted	0.60	100	10
	B	1	1490	1490	0		3600	1828	82		23	0.00	65	66
	Bc	1	879	879	0		3600	1218	72		39	1.12	43	44
	Bx	1	1227	1227	0		Unrestricted	Unrestricted	0		Unrestricted	0.48	100	10
	C	1	1068	1068	0		3600	1350	79		26	0.00	44	45
	Cc	1	1333	1333	0		3600	1950	68		46	0.82	64	65
	Cx	1	1036	1036	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	130	13
	D	1	1427	1427	0		3600	2304	62		61	0.23	63	64
	Dc	1	627	627	0		3600	1008	62		61	1.04	27	28
	Dx	1	1774	1774	0		Unrestricted	Unrestricted	0		Unrestricted	0.44	120	12
	13	1	272	272	0		1800	1800	15		562	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	31.16	11.13	1.77	183.13	183.13	85.03	1218.34	48.65	15.89	15.89
	Bc	1	2.40	41.59	9.19	0.97	144.21	144.21	16.08	115.38	25.93	1.77	1.77
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	38.30	9.89	1.47	161.33	161.33	91.00	928.13	43.78	12.19	12.19
	Cc	1	1.80	22.06	7.41	0.76	115.98	115.98	7.91	83.33	22.16	1.32	1.32
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	12.01	4.26	0.50	67.57	67.57	37.82	521.71	18.04	6.77	6.77
	Dc	1	2.40	34.50	5.47	0.54	85.31	85.31	26.86	150.00	18.40	2.11	2.11
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.18	0.00	0.01	0.19	0.19	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.02	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	46.89	34.78	134.80	1.41	0.00	0.00	1.77	28.26	0.00	0.00	0.00	
	Bc	1	5.00	5.11	5.00	102.20	0.01	0.22	10.77	0.94	22.43	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	32.92	18.27	180.18	3.08	0.00	0.00	1.47	23.72	0.00	0.00	0.00	
	Cc	1	5.00	3.52	5.00	70.39	0.00	0.27	13.46	0.74	21.48	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	D	1	0.00	14.99	16.84	89.03	0.00	0.00	0.00	0.50	16.75	0.00	0.00	0.00	
	Dc	1	5.00	4.68	5.00	93.63	0.00	0.15	7.44	0.51	13.40	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.01	8.76	0.15	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.77	0.16	29.75	2.12
	Ac	1	27.51	0.92	30.00	1.80
	Ax	1	22.00	0.73	30.00	12.00
	B	1	149.00	17.86	8.34	43.16
	Bc	1	17.58	10.72	1.64	43.90
	Bx	1	122.70	4.09	30.00	12.00
	C	1	56.10	13.23	4.24	44.60
	Cc	1	20.00	8.82	2.27	23.82
	Cx	1	106.02	3.53	30.00	12.28
	D	1	69.10	7.06	9.78	17.82
	Dc	1	12.54	6.40	1.96	36.75
	Dx	1	177.40	5.91	30.00	12.00
	13	1	13.70	0.47	29.14	6.22

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	46.90	1.78	28.27	1.00	0.00	199.02	199.02
	Bc	1	0.00	0.00	✓	5.11	0.94	22.43	1.00	10.77	145.99	156.76
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	32.93	1.49	23.74	1.00	0.00	173.51	173.51
	Cc	1	0.00	0.00	✓	3.52	0.74	21.48	1.00	13.46	117.31	130.77
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.00	0.50	16.75	1.00	0.00	74.34	74.34
	Dc	1	0.00	0.00	✓	4.68	0.51	13.40	1.00	7.44	87.43	94.87
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.01			1.00	0.00	0.19	0.19

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	70	10.63	0.69	2.10	2.10
		2	1	50	11000	70	10.63	0.69	2.10	2.10
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6417	1		12733	0.00	70	70
		2	50	50	0		11000	6417	1		12733	0.00	70	70
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	10.63	0.15	0.00	2.10	2.10
		2	5.00	10.63	0.15	0.00	2.10	2.10
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.69	10.00	6.94	0.00	0.00	0.00
		2	0.69	10.00	6.94	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.19	1.06	13.63
		2	0.30	0.22	1.38	15.63
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.69	1.00	0.00	2.10	2.10
		2	0.00	0.00	0.69	1.00	0.00	2.10	2.10
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	25/03/2022 08:28:20	25/03/2022 08:28:34	17:00	120	881.46	57.02	81.52	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	82	0	13459	1056	14.27	757.75	40.05	829.48

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	160	43.93	51.98	51.98

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	13759	13759	0		82		23	1216	1222

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	14.92	51.00	6.03	809.73	809.73	23.21	3016.89	176.96	40.05	40.05

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	180.18	31.68	22.00	0.00	22.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	799.81	83.88	9.54

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	31.68	0.00	849.78	881.46

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	56.6	93.3	95.1	0.0	0.0	0.0	0.0
	2	75.8	0.0	29.8	31.6	0.0	0.0	0.0	0.0
	3	64.5	88.1	0.0	20.3	0.0	0.0	0.0	0.0
	4	55.4	79.0	115.7	117.5	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	79.2	0.0	0.0
	6	0.0	0.0	0.0	0.0	79.2	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	497		56.60		497	56.60
8	1	3	105		93.35		105	93.35
16	3	1	100		64.53		100	64.53
17	3	4	18		20.35		18	20.35
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	21		115.73		21	115.73
25	4	2	1123		78.98		1123	78.98
26	2	1	625		75.80		625	75.80
31	2	3	94		29.82		94	29.82
32	6	5		50		79.20	50	79.20
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		79.20	50	79.20
137	4	1	311		55.44		311	55.44
140	2	4	708		31.62		708	31.62
141	3	2	154		88.07		154	88.07
142	1	4	466		95.15		466	95.15
143	4	4	35		117.53		35	117.53

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			272	5400	100	0.00	5	1885	2.12	0.02	0.00	0.00	
Ac	1	(untitled)	3			1834	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				220	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1490 <	3600	65	0.00	82	23	43.16	31.16	85.03	46.89 +	28.
Bc	1	(untitled)	4	3	B	879 <	3600	43	0.00	72	39	43.90	41.59	16.08	5.11 +	22.
Bx	1	(untitled)				1227	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1068 <	3600	44	0.00	79	26	44.60	38.30	91.00	32.92 +	23.
Cc	1	(untitled)	1	1	B	1333	3600	64	0.00	68	46	23.82	22.06	7.91	3.52	21.
Cx	1	(untitled)				1036	Unrestricted	130	10.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1427	3600	63	0.00	62	61	17.82	12.01	37.82	14.99	16.
Dc	1	(untitled)	2	2	B	627	3600	27	0.00	62	61	36.75	34.50	26.86	4.68	13.
Dx	1	(untitled)				1774	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			272	1800	100	0.00	15	562	6.22	0.18	0.00	0.01	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	70	1	12733	13.63	10.63	0.69	100	0
	2	(untitled)		1	C	50	11000	70	1	12733	15.63	10.63	0.69	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	798.41	79.91	9.99	47.34	6.03	757.75	40.05	31.68	829.48
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.97	0.35	3.66	0.00	51.98	0.00	0.00	51.98
TOTAL	799.81	83.88	9.54	51.00	6.03	809.73	40.05	31.68	881.46

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - 2025 DO SOMETHING
D4 - 2025 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	25/03/2022 08:28:34	25/03/2022 08:28:48	17:00	120	912.74	58.97	83.44	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2025 DO SOMETHING		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2025 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	275	275
Ac	1	1875	1875
Ax	1	222	222
B	1	1502	1502
Bc	1	909	909
Bx	1	1241	1241
C	1	1098	1098
Cc	1	1333	1333
Cx	1	1078	1078
D	1	1454	1454
Dc	1	643	643
Dx	1	1788	1788
13	1	275	275

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	511	107	480	0	0	0	0
	2	652	0	94	708	0	0	0	0
	3	103	154	0	18	0	0	0	0
	4	323	1123	21	35	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	511
	8		1	3	C/1, Dc/1, Ax/1	Normal	107
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	103
	17		3	4	13/1, A/1, Bx/1	Normal	18
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	21
	25		4	2	B/1, Cc/1, Dx/1	Normal	1123
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	652
	31		2	3	D/1, Ax/1	Normal	94
	137		4	1	B/1, Cx/1	Normal	323
	140		2	4	D/1, Ac/1, Bx/1	Normal	708
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	154
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	480
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	35

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	66, 116

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	3	66	63	1	7
	2	✓	2	A	71	116	45	1	7

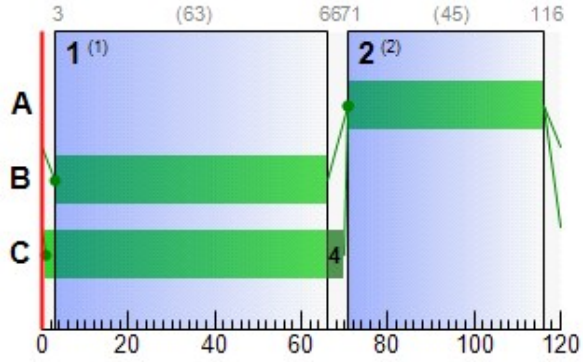
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	71	116	45
	B	1	✓	3	66	63
	C	1	✓	1	70	69

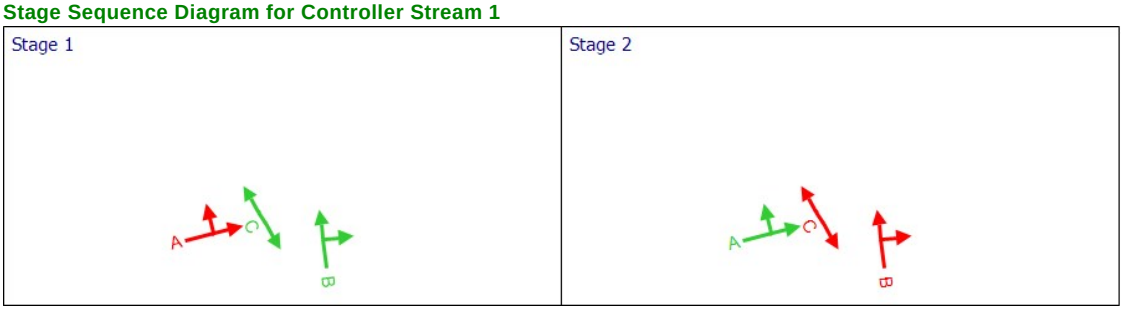
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	71	116	45
Cc	1	1	1	B	3	66	63

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	10, 78

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	83	10	27	1	7
	2	✓	2	A	15	78	63	1	7

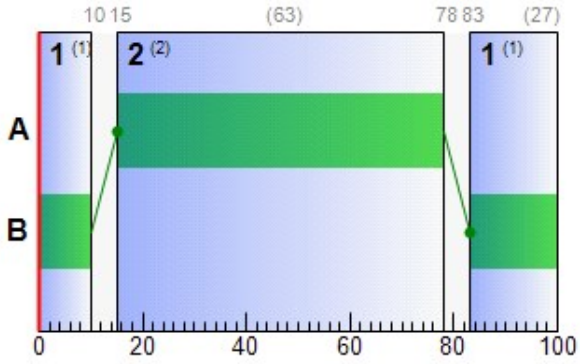
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	15	78	63
	B	1	✓	83	10	27

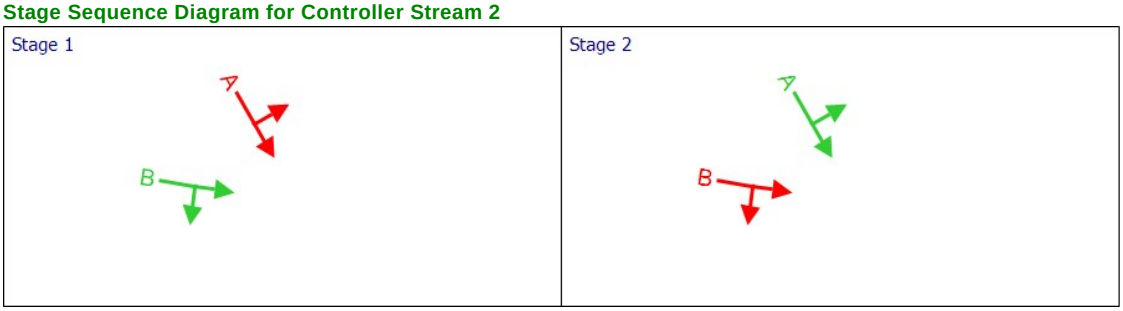
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	15	78	63
Dc	1	2	2	B	83	10	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	28, 97, 113

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	114	28	44	1	7
	2	✓	2	A	33	97	64	1	7
	3	✓	3	C	108	113	5	1	5

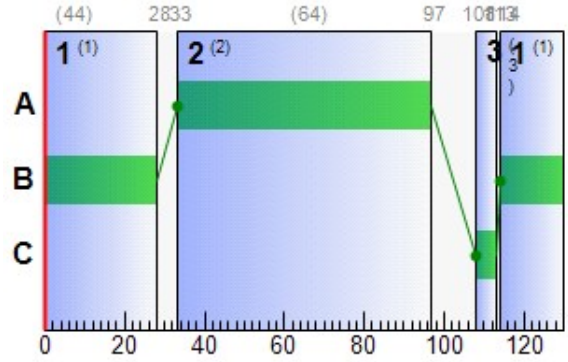
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	33	97	64
	B	1	✓	114	28	44
	C	1	✓	108	113	5

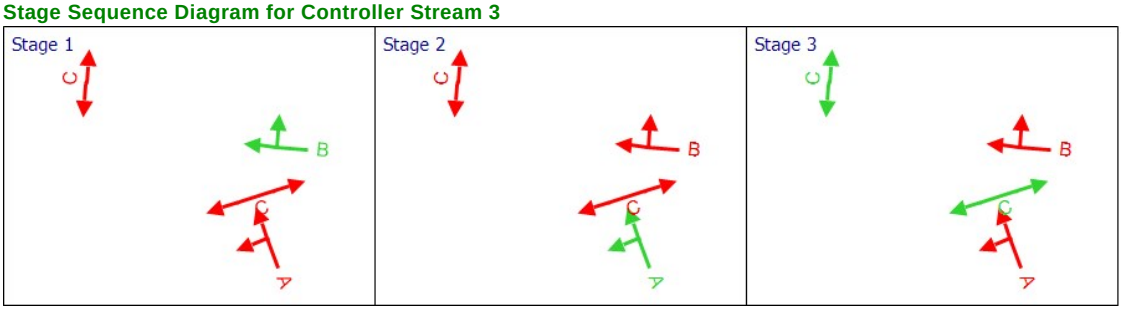
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	33	97	64
Bc	1	4	3	B	114	28	44

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	5	1864	275	5400	100	0.02	0.00	0.02	0.02	0.00	0.02
	Ac	1	0	Unrestricted	1875	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	222	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	83	20	1502	3600	64	32.83	48.37	139.08	194.50	16.45	210.95
	Bc	1	73	37	909	3600	44	41.20	5.16	103.20	147.72	1.79	161.42
	Bx	1	0	Unrestricted	1241	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	80	26	1098	3600	45	37.83	33.85	185.28	163.84	12.52	176.35
	Cc	1	69	44	1333	3600	63	22.93	3.57	71.40	120.56	1.34	136.93
	Cx	1	0	Unrestricted	1078	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	63	58	1454	3600	63	12.20	15.03	89.24	70.00	6.78	76.78
	Dc	1	64	57	643	3600	27	34.88	4.73	94.65	88.46	2.13	97.94
	Dx	1	0	Unrestricted	1788	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	15	555	275	1800	100	0.18	0.01	0.16	0.20	0.00	0.20

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	275	275	0		5400	5400	5		1864	0.00	100	10
	Ac	1	1875	1875	0		Unrestricted	Unrestricted	0		Unrestricted	0.55	100	10
	Ax	1	222	222	0		Unrestricted	Unrestricted	0		Unrestricted	0.59	100	10
	B	1	1502	1502	0		3600	1800	83		20	0.00	64	65
	Bc	1	909	909	0		3600	1246	73		37	1.12	44	45
	Bx	1	1241	1241	0		Unrestricted	Unrestricted	0		Unrestricted	0.47	100	10
	C	1	1098	1098	0		3600	1380	80		26	0.00	45	46
	Cc	1	1333	1333	0		3600	1920	69		44	0.84	63	64
	Cx	1	1078	1078	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	130	13
	D	1	1454	1454	0		3600	2304	63		58	0.24	63	64
	Dc	1	643	643	0		3600	1008	64		57	1.05	27	28
	Dx	1	1788	1788	0		Unrestricted	Unrestricted	0		Unrestricted	0.44	120	12
	13	1	275	275	0		1800	1800	15		555	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	32.83	11.63	2.06	194.50	194.50	87.37	1255.74	56.58	16.45	16.45
	Bc	1	2.40	41.20	9.39	1.02	147.72	147.72	15.70	115.38	27.30	1.79	1.79
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	37.83	10.01	1.52	163.84	163.84	90.92	953.04	45.25	12.52	12.52
	Cc	1	1.80	22.93	7.68	0.81	120.56	120.56	8.03	83.33	23.66	1.34	1.34
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	12.20	4.39	0.54	70.00	70.00	37.21	521.72	19.31	6.78	6.78
	Dc	1	2.40	34.88	5.64	0.59	88.46	88.46	26.47	150.00	20.20	2.13	2.13
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.18	0.00	0.01	0.20	0.20	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.02	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	48.37	34.78	139.08	1.76	0.00	0.00	2.06	29.18	0.00	0.00	0.00	
	Bc	1	5.00	5.16	5.00	103.20	0.01	0.24	11.91	0.99	22.96	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	33.85	18.27	185.28	3.38	0.00	0.00	1.52	24.09	0.00	0.00	0.00	
	Cc	1	5.00	3.57	5.00	71.40	0.00	0.30	15.03	0.79	21.90	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	D	1	0.00	15.03	16.84	89.24	0.00	0.00	0.00	0.54	17.09	0.00	0.00	0.00	
	Dc	1	5.00	4.73	5.00	94.65	0.00	0.15	7.35	0.57	13.78	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.01	8.76	0.16	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
	A	1	4.83	0.16	29.75	2.12
	Ac	1	28.13	0.94	30.00	1.80
17:00-18:00	B	1	150.20	18.70	8.03	44.83
	Bc	1	18.18	10.99	1.65	43.51
	Bx	1	124.10	4.14	30.00	12.00
	C	1	57.68	13.46	4.29	44.13
	Cc	1	20.00	9.14	2.19	24.69
	Cx	1	110.31	3.68	30.00	12.28
	D	1	70.40	7.28	9.68	18.02
	Dc	1	12.86	6.63	1.94	37.13
	Dx	1	178.80	5.96	30.00	12.00
	13	1	13.85	0.48	29.13	6.22

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	48.39	2.08	29.20	1.00	0.00	210.95	210.95
	Bc	1	0.00	0.00	✓	5.16	0.99	22.96	1.00	11.91	149.51	161.42
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	33.87	1.54	24.11	1.00	0.00	176.35	176.35
	Cc	1	0.00	0.00	✓	3.57	0.79	21.90	1.00	15.03	121.90	136.93
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.03	0.54	17.09	1.00	0.00	76.78	76.78
	Dc	1	0.00	0.00	✓	4.73	0.56	13.78	1.00	7.35	90.59	97.94
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.01			1.00	0.00	0.20	0.20

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	69	11.05	0.71	2.18	2.18
		2	1	50	11000	69	11.05	0.71	2.18	2.18
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6325	1		12550	0.00	69	69
		2	50	50	0		11000	6325	1		12550	0.00	69	69
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.05	0.15	0.00	2.18	2.18
		2	5.00	11.05	0.15	0.00	2.18	2.18
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.71	10.00	7.08	0.00	0.00	0.00
		2	0.71	10.00	7.08	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.20	1.02	14.05
		2	0.30	0.22	1.35	16.05
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.71	1.00	0.00	2.18	2.18
		2	0.00	0.00	0.71	1.00	0.00	2.18	2.18
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	25/03/2022 08:28:34	25/03/2022 08:28:48	17:00	120	912.74	58.97	83.44	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	83	0	13693	1056	14.54	785.29	41.02	860.59

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	158	44.07	52.15	52.15

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	13993	13993	0		83		20	1214	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	15.17	52.42	6.55	837.43	837.43	23.38	3079.22	192.31	41.02	41.02

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	185.28	34.28	22.00	0.00	22.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	812.93	86.27	9.42

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	34.28	0.00	878.45	912.74

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	56.1	93.3	95.1	0.0	0.0	0.0	0.0
	2	75.6	0.0	30.0	31.8	0.0	0.0	0.0	0.0
	3	64.1	88.5	0.0	20.3	0.0	0.0	0.0	0.0
	4	57.1	81.5	118.6	120.4	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	79.6	0.0	0.0
	6	0.0	0.0	0.0	0.0	79.6	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	511		56.13		511	56.13
8	1	3	107		93.26		107	93.26
16	3	1	103		64.14		103	64.14
17	3	4	18		20.35		18	20.35
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	21		118.65		21	118.65
25	4	2	1123		81.52		1123	81.52
26	2	1	652		75.61		652	75.61
31	2	3	94		30.02		94	30.02
32	6	5		50		79.63	50	79.63
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		79.63	50	79.63
137	4	1	323		57.11		323	57.11
140	2	4	708		31.82		708	31.82
141	3	2	154		88.55		154	88.55
142	1	4	480		95.06		480	95.06
143	4	4	35		120.45		35	120.45

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			275	5400	100	0.00	5	1864	2.12	0.02	0.00	0.00	
Ac	1	(untitled)	3			1875	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				222	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1502 <	3600	64	0.00	83	20	44.83	32.83	87.37	48.37 +	29.
Bc	1	(untitled)	4	3	B	909 <	3600	44	0.00	73	37	43.51	41.20	15.70	5.16 +	22.
Bx	1	(untitled)				1241	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1098 <	3600	45	0.00	80	26	44.13	37.83	90.92	33.85 +	24.
Cc	1	(untitled)	1	1	B	1333	3600	63	0.00	69	44	24.69	22.93	8.03	3.57	21.
Cx	1	(untitled)				1078	Unrestricted	130	10.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1454	3600	63	0.00	63	58	18.02	12.20	37.21	15.03	17.
Dc	1	(untitled)	2	2	B	643	3600	27	0.00	64	57	37.13	34.88	26.47	4.73	13.
Dx	1	(untitled)				1788	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			275	1800	100	0.00	15	555	6.22	0.18	0.00	0.01	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	69	1	12550	14.05	11.05	0.71	100	0
	2	(untitled)		1	C	50	11000	69	1	12550	16.05	11.05	0.71	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	811.53	82.29	9.86	48.75	6.55	785.29	41.02	34.28	860.59
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.98	0.35	3.67	0.00	52.15	0.00	0.00	52.15
TOTAL	812.93	86.27	9.42	52.42	6.55	837.43	41.02	34.28	912.74

< = adjusted flow warning (upstream links/traffic streams are over-saturated)

** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*

^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%

+ = average link/traffic stream excess queue is greater than 0

P.I. = PERFORMANCE INDEX

A5 - 2027 DO NOTHING
D5 - 2027 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	25/03/2022 08:28:49	25/03/2022 08:29:02	17:00	120	916.03	58.94	83.11	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO NOTHING		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	277	277
Ac	1	1871	1871
Ax	1	223	223
B	1	1519	1519
Bc	1	897	897
Bx	1	1251	1251
C	1	1088	1088
Cc	1	1359	1359
Cx	1	1057	1057
D	1	1455	1455
Dc	1	639	639
Dx	1	1808	1808
13	1	277	277

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	506	107	475	0	0	0	0
	2	638	0	95	722	0	0	0	0
	3	102	157	0	18	0	0	0	0
	4	317	1145	21	36	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	506
	8		1	3	C/1, Dc/1, Ax/1	Normal	107
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	102
	17		3	4	13/1, A/1, Bx/1	Normal	18
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	21
	25		4	2	B/1, Cc/1, Dx/1	Normal	1145
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	638
	31		2	3	D/1, Ax/1	Normal	95
	137		4	1	B/1, Cx/1	Normal	317
	140		2	4	D/1, Ac/1, Bx/1	Normal	722
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	157
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	475
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	36

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	61, 111

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	118	61	63	1	7
	2	✓	2	A	66	111	45	1	7

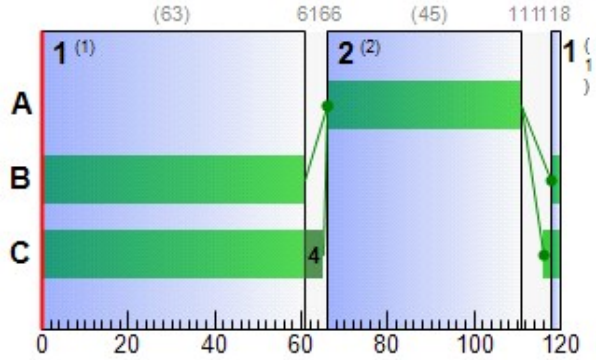
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	66	111	45
	B	1	✓	118	61	63
	C	1	✓	116	65	69

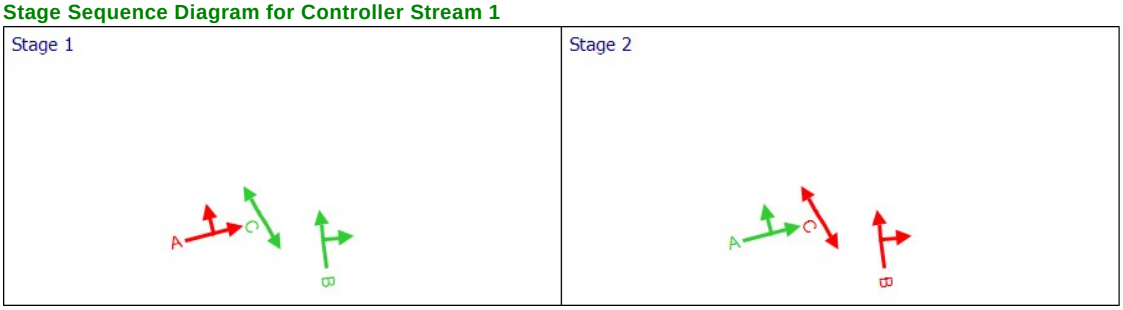
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	66	111	45
Cc	1	1	1	B	118	61	63

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	64, 32

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	37	64	27	1	7
	2	✓	2	A	69	32	63	1	7

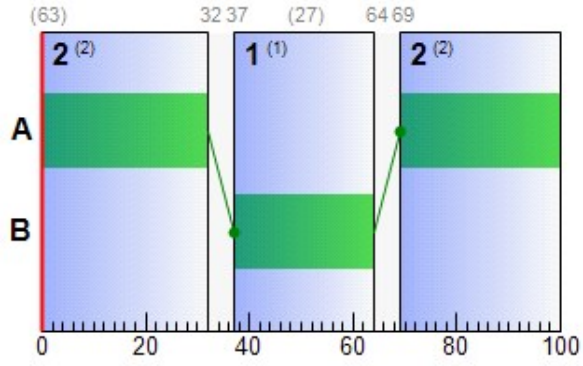
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	69	32	63
	B	1	✓	37	64	27

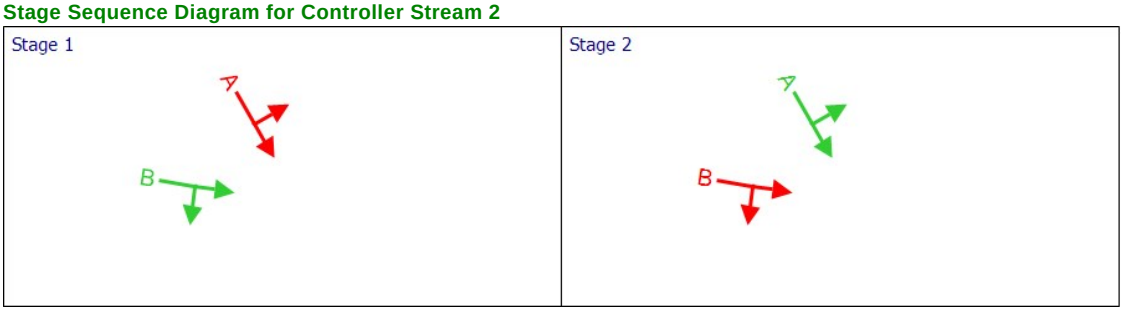
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	69	32	63
Dc	1	2	2	B	37	64	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	12, 82, 98

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	99	12	43	1	7
	2	✓	2	A	17	82	65	1	7
	3	✓	3	C	93	98	5	1	5

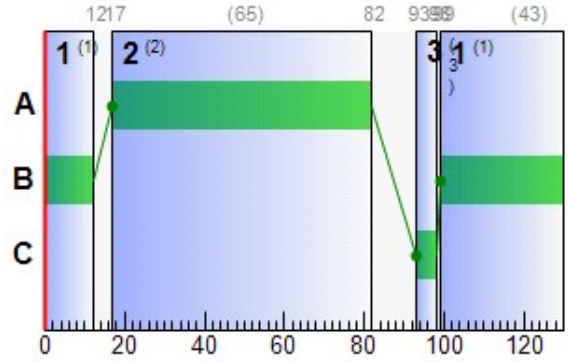
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	17	82	65
	B	1	✓	99	12	43
	C	1	✓	93	98	5

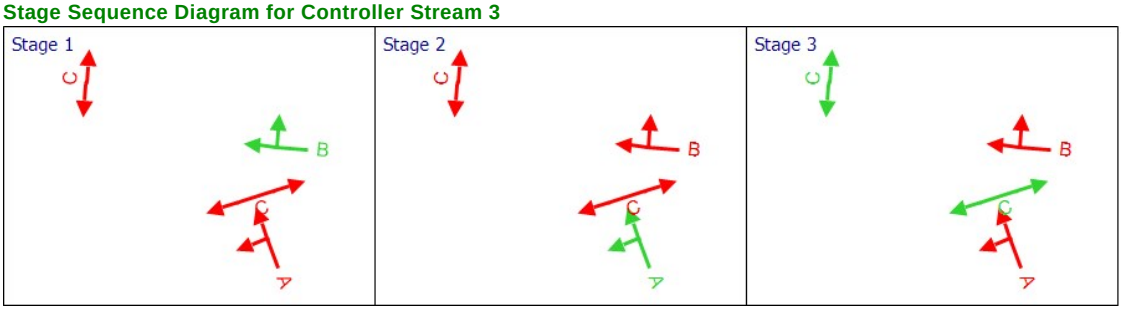
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	17	82	65
Bc	1	4	3	B	99	12	43

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	5	1849	277	5400	100	0.02	0.00	0.02	0.02	0.00	0.02
	Ac	1	0	Unrestricted	1871	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	223	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	83	20	1519	3600	65	32.01	48.42	139.21	191.81	16.49	208.30
	Bc	1	74	36	897	3600	43	42.15	5.21	104.10	149.12	1.80	164.21
	Bx	1	0	Unrestricted	1251	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	79	27	1088	3600	45	37.49	33.48	183.25	160.87	12.31	173.18
	Cc	1	71	41	1359	3600	63	23.31	3.64	72.80	124.97	1.37	143.29
	Cx	1	0	Unrestricted	1057	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	63	58	1455	3600	63	12.21	15.03	89.25	70.09	6.78	76.87
	Dc	1	63	58	639	3600	27	34.78	4.72	94.38	87.66	2.13	97.81
	Dx	1	0	Unrestricted	1808	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	15	550	277	1800	100	0.18	0.01	0.16	0.20	0.00	0.20

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	277	277	0		5400	5400	5		1849	0.00	100	10
	Ac	1	1871	1871	0		Unrestricted	Unrestricted	0		Unrestricted	0.55	100	10
	Ax	1	223	223	0		Unrestricted	Unrestricted	0		Unrestricted	0.59	100	10
	B	1	1519	1519	0		3600	1828	83		20	0.00	65	66
	Bc	1	897	897	0		3600	1218	74		36	1.13	43	44
	Bx	1	1251	1251	0		Unrestricted	Unrestricted	0		Unrestricted	0.47	100	10
	C	1	1088	1088	0		3600	1380	79		27	0.00	45	46
	Cc	1	1359	1359	0		3600	1920	71		41	0.84	63	64
	Cx	1	1057	1057	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	130	13
	D	1	1455	1455	0		3600	2304	63		58	0.24	63	64
	Dc	1	639	639	0		3600	1008	63		58	1.05	27	28
	Dx	1	1808	1808	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	120	12
	13	1	277	277	0		1800	1800	15		550	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	32.01	11.50	2.01	191.81	191.81	86.59	1260.26	55.10	16.49	16.49
	Bc	1	2.40	42.15	9.44	1.06	149.12	149.12	16.04	115.38	28.53	1.80	1.80
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	37.49	9.88	1.45	160.87	160.87	90.23	938.71	42.97	12.31	12.31
	Cc	1	1.80	23.31	7.92	0.88	124.97	124.97	8.03	83.33	25.74	1.37	1.37
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	12.21	4.40	0.54	70.09	70.09	37.19	521.72	19.36	6.78	6.78
	Dc	1	2.40	34.78	5.59	0.58	87.66	87.66	26.56	150.00	19.74	2.13	2.13
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.18	0.00	0.01	0.20	0.20	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.02	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	48.42	34.78	139.21	1.75	0.00	0.00	2.01	29.01	0.00	0.00	0.00	
	Bc	1	5.00	5.21	5.00	104.10	0.01	0.27	13.28	1.04	22.97	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	33.48	18.27	183.25	3.25	0.00	0.00	1.45	23.81	0.00	0.00	0.00	
	Cc	1	5.00	3.64	5.00	72.80	0.00	0.34	16.95	0.86	22.38	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	D	1	0.00	15.03	16.84	89.25	0.00	0.00	0.00	0.54	17.11	0.00	0.00	0.00	
	Dc	1	5.00	4.72	5.00	94.38	0.00	0.16	8.01	0.55	13.69	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.01	8.76	0.16	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.86	0.16	29.75	2.12
	Ac	1	28.07	0.94	30.00	1.80
	Ax	1	22.30	0.74	30.00	12.00
	B	1	151.90	18.57	8.18	44.01
	Bc	1	17.94	11.08	1.62	44.46
	Bx	1	125.10	4.17	30.00	12.00
	C	1	57.15	13.23	4.32	43.79
	Cc	1	20.39	9.47	2.15	25.07
	Cx	1	108.16	3.61	30.00	12.28
	D	1	70.45	7.28	9.67	18.02
	Dc	1	12.78	6.57	1.94	37.03
	Dx	1	180.80	6.03	30.00	12.00
	13	1	13.95	0.48	29.12	6.22

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	48.44	2.03	29.03	1.00	0.00	208.30	208.30
	Bc	1	0.00	0.00	✓	5.20	1.03	22.96	1.00	13.28	150.93	164.21
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	33.49	1.46	23.82	1.00	0.00	173.18	173.18
	Cc	1	0.00	0.00	✓	3.64	0.86	22.38	1.00	16.95	126.34	143.29
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.03	0.54	17.11	1.00	0.00	76.87	76.87
	Dc	1	0.00	0.00	✓	4.72	0.55	13.69	1.00	8.01	89.79	97.81
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.01			1.00	0.00	0.20	0.20

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	69	11.05	0.71	2.18	2.18
		2	1	50	11000	69	11.05	0.71	2.18	2.18
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6325	1		12550	0.00	69	69
		2	50	50	0		11000	6325	1		12550	0.00	69	69
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.05	0.15	0.00	2.18	2.18
		2	5.00	11.05	0.15	0.00	2.18	2.18
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.71	10.00	7.08	0.00	0.00	0.00
		2	0.71	10.00	7.08	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.20	1.02	14.05
		2	0.30	0.22	1.35	16.05
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.71	1.00	0.00	2.18	2.18
		2	0.00	0.00	0.71	1.00	0.00	2.18	2.18
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	25/03/2022 08:28:49	25/03/2022 08:29:02	17:00	120	916.03	58.94	83.11	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	83	0	13721	1056	14.50	784.75	40.89	863.88

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	158	44.07	52.15	52.15

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	14021	14021	0		83		20	1214	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	15.13	52.41	6.53	836.90	836.90	23.26	3069.42	191.44	40.89	40.89

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	183.25	38.24	22.00	0.00	22.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	815.25	86.31	9.45

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	38.24	0.00	877.78	916.03

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.8	92.8	94.6	0.0	0.0	0.0	0.0
	2	76.6	0.0	30.0	31.8	0.0	0.0	0.0	0.0
	3	65.1	89.9	0.0	20.3	0.0	0.0	0.0	0.0
	4	56.3	81.1	118.1	119.9	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	79.6	0.0	0.0
	6	0.0	0.0	0.0	0.0	79.6	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	506		55.79		506	55.79
8	1	3	107		92.82		107	92.82
16	3	1	102		65.09		102	65.09
17	3	4	18		20.35		18	20.35
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	21		118.12		21	118.12
25	4	2	1145		81.09		1145	81.09
26	2	1	638		76.56		638	76.56
31	2	3	95		30.02		95	30.02
32	6	5		50		79.63	50	79.63
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		79.63	50	79.63
137	4	1	317		56.29		317	56.29
140	2	4	722		31.82		722	31.82
141	3	2	157		89.88		157	89.88
142	1	4	475		94.62		475	94.62
143	4	4	36		119.92		36	119.92

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			277	5400	100	0.00	5	1849	2.12	0.02	0.00	0.00	
Ac	1	(untitled)	3			1871	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				223	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1519 <	3600	65	0.00	83	20	44.01	32.01	86.59	48.42 +	29.
Bc	1	(untitled)	4	3	B	897 <	3600	43	0.00	74	36	44.46	42.15	16.04	5.21 +	22.
Bx	1	(untitled)				1251	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1088 <	3600	45	0.00	79	27	43.79	37.49	90.23	33.48 +	23.
Cc	1	(untitled)	1	1	B	1359	3600	63	0.00	71	41	25.07	23.31	8.03	3.64	22.
Cx	1	(untitled)				1057	Unrestricted	130	10.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1455	3600	63	0.00	63	58	18.02	12.21	37.19	15.03	17.
Dc	1	(untitled)	2	2	B	639	3600	27	0.00	63	58	37.03	34.78	26.56	4.72	13.
Dx	1	(untitled)				1808	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			277	1800	100	0.00	15	550	6.22	0.18	0.00	0.01	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	69	1	12550	14.05	11.05	0.71	100	0
	2	(untitled)		1	C	50	11000	69	1	12550	16.05	11.05	0.71	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	813.85	82.33	9.89	48.74	6.53	784.75	40.89	38.24	863.88
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.98	0.35	3.67	0.00	52.15	0.00	0.00	52.15
TOTAL	815.25	86.31	9.45	52.41	6.53	836.90	40.89	38.24	916.03

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - 2027 DO SOMETHING
D6 - 2027 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	25/03/2022 08:29:03	25/03/2022 08:29:16	17:00	120	989.60	63.15	85.83	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2027 DO SOMETHING		D6	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2027 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	283	283
Ac	1	1953	1953
Ax	1	229	229
B	1	1545	1545
Bc	1	957	957
Bx	1	1279	1279
C	1	1151	1151
Cc	1	1359	1359
Cx	1	1143	1143
D	1	1509	1509
Dc	1	673	673
Dx	1	1837	1837
13	1	283	283

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	535	113	503	0	0	0	0
	2	692	0	95	722	0	0	0	0
	3	108	157	0	18	0	0	0	0
	4	343	1145	21	36	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	535
	8		1	3	C/1, Dc/1, Ax/1	Normal	113
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	108
	17		3	4	13/1, A/1, Bx/1	Normal	18
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	21
	25		4	2	B/1, Cc/1, Dx/1	Normal	1145
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	692
	31		2	3	D/1, Ax/1	Normal	95
	137		4	1	B/1, Cx/1	Normal	343
	140		2	4	D/1, Ac/1, Bx/1	Normal	722
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	157
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	503
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	36

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	115, 46

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	53	115	62	1	7
	2	✓	2	A	0	46	46	1	7

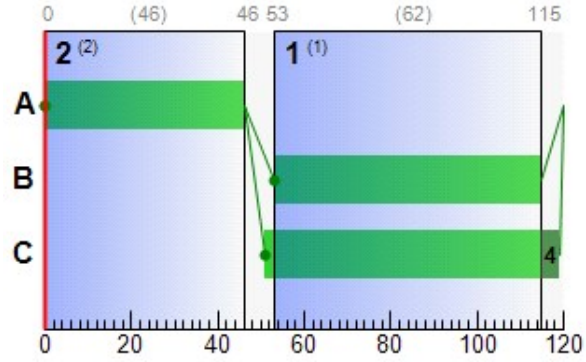
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	0	46	46
	B	1	✓	53	115	62
	C	1	✓	51	119	68

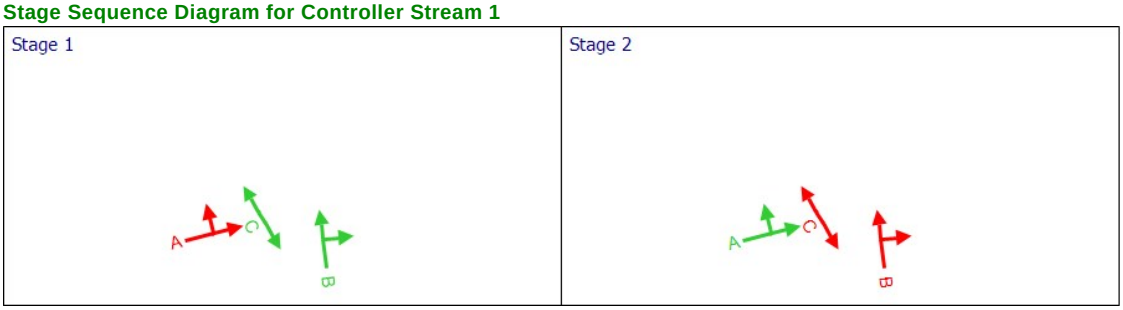
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	0	46	46
Cc	1	1	1	B	53	115	62

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	65, 33

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	38	65	27	1	7
	2	✓	2	A	70	33	63	1	7

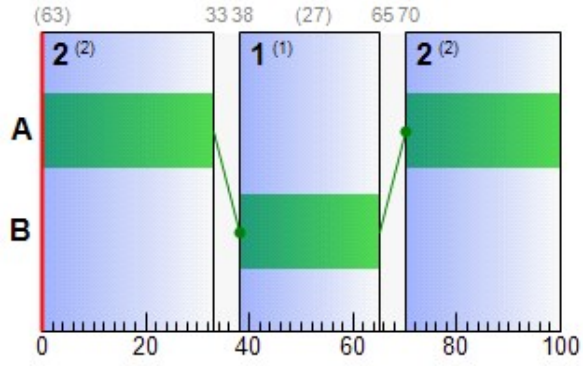
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	70	33	63
	B	1	✓	38	65	27

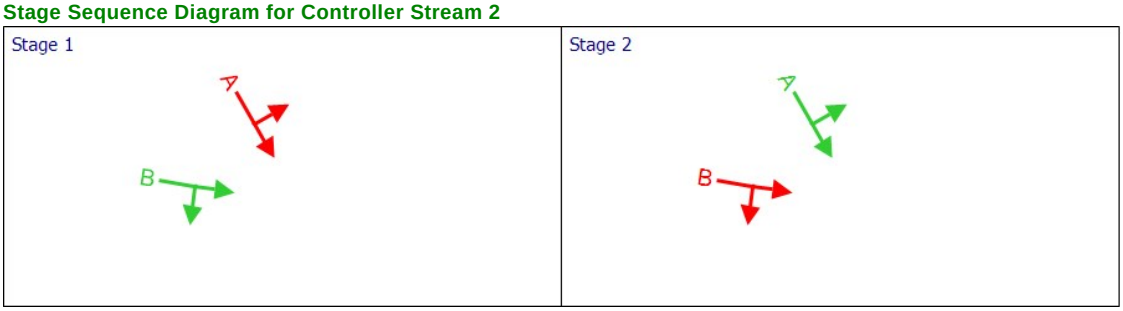
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	70	33	63
Dc	1	2	2	B	38	65	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	53, 122, 8

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	9	53	44	1	7
	2	✓	2	A	58	122	64	1	7
	3	✓	3	C	3	8	5	1	5

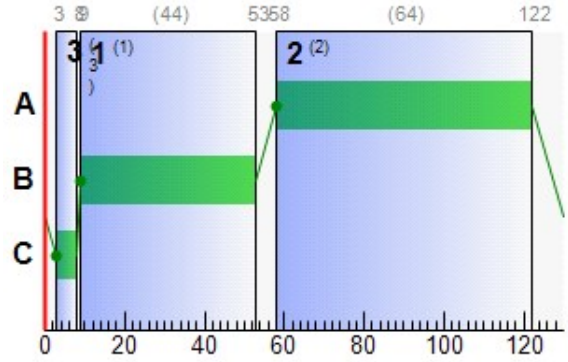
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	58	122	64
	B	1	✓	9	53	44
	C	1	✓	3	8	5

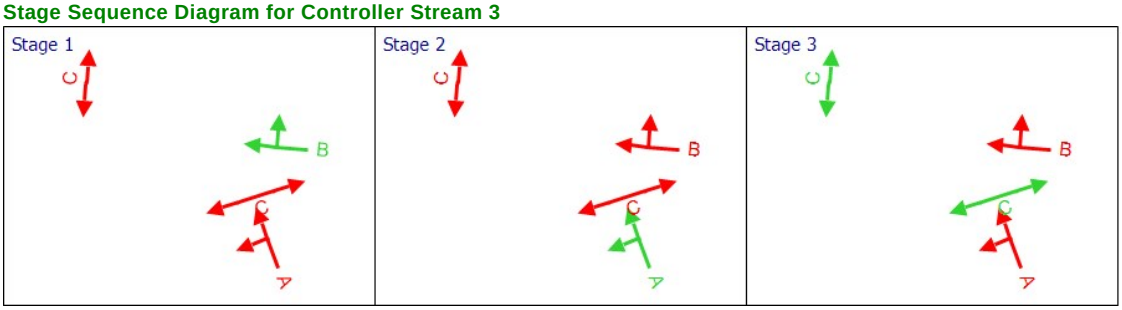
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	58	122	64
Bc	1	4	3	B	9	53	44

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
	A	1	5	1808	283	5400	100	0.02	0.00	0.02	0.02	0.00	0.02
	Ac	1	0	Unrestricted	1953	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	229	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	86	17	1545	3600	64	34.37	51.03	146.71	209.45	17.40	226.85
	Bc	1	77	30	957	3600	44	42.78	5.46	109.11	161.48	1.89	185.47
	Bx	1	0	Unrestricted	1279	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Cc	1	72	39	1359	3600	62	24.24	3.70	74.07	129.94	1.39	150.30
	Cx	1	0	Unrestricted	1143	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	65	53	1509	3600	63	12.63	15.11	89.73	75.20	6.82	82.02
	Dc	1	67	50	673	3600	27	35.65	4.84	96.86	94.63	2.18	105.69
	Dx	1	0	Unrestricted	1837	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	16	536	283	1800	100	0.19	0.01	0.17	0.21	0.00	0.21

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	283	283	0		5400	5400	5		1808	0.00	100	10
	Ac	1	1953	1953	0		Unrestricted	Unrestricted	0		Unrestricted	0.53	100	10
	Ax	1	229	229	0		Unrestricted	Unrestricted	0		Unrestricted	0.59	100	10
	B	1	1545	1545	0		3600	1800	86		17	0.00	64	65
	Bc	1	957	957	0		3600	1246	77		30	1.13	44	45
	Bx	1	1279	1279	0		Unrestricted	Unrestricted	0		Unrestricted	0.46	100	10
	C	1	1151	1151	0		3600	1410	82		23	0.00	46	47
	Cc	1	1359	1359	0		3600	1890	72		39	0.86	62	63
	Cx	1	1143	1143	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	130	13
	D	1	1509	1509	0		3600	2304	65		53	0.27	63	64
	Dc	1	673	673	0		3600	1008	67		50	1.07	27	28
	Dx	1	1837	1837	0		Unrestricted	Unrestricted	0		Unrestricted	0.44	120	12
	13	1	283	283	0		1800	1800	16		536	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	34.37	12.22	2.53	209.45	209.45	89.81	1318.18	69.35	17.40	17.40
	Bc	1	2.40	42.78	10.06	1.31	161.48	161.48	15.75	115.38	35.36	1.89	1.89
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	38.20	10.44	1.78	173.45	173.45	91.98	1005.92	52.73	13.27	13.27
	Cc	1	1.80	24.24	8.21	0.94	129.94	129.94	8.17	83.33	27.63	1.39	1.39
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	12.63	4.68	0.62	75.20	75.20	36.05	521.73	22.22	6.82	6.82
	Dc	1	2.40	35.65	5.96	0.70	94.63	94.63	25.87	150.00	24.12	2.18	2.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.19	0.00	0.01	0.21	0.21	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.02	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	51.03	34.78	146.71	2.43	0.00	0.00	2.53	30.43	0.00	0.00	0.00	
	Bc	1	5.00	5.46	5.00	109.11	0.03	0.44	22.09	1.29	24.42	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	35.99	18.27	196.96	4.16	0.00	0.00	1.78	25.12	0.00	0.00	0.00	
	Cc	1	5.00	3.70	5.00	74.07	0.00	0.38	18.97	0.93	22.82	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	D	1	0.00	15.11	16.84	89.73	0.00	0.00	0.00	0.62	17.80	0.00	0.00	0.00	
	Dc	1	5.00	4.84	5.00	96.86	0.00	0.18	8.88	0.68	14.51	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.01	8.76	0.17	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	4.97	0.17	29.74	2.12
	Ac	1	29.30	0.98	30.00	1.80
	Ax	1	22.90	0.76	30.00	12.00
	B	1	154.50	19.90	7.76	46.37
	Bc	1	19.14	11.99	1.60	45.10
	Bx	1	127.90	4.26	30.00	12.00
	C	1	60.46	14.23	4.25	44.51
	Cc	1	20.39	9.82	2.08	26.00
	Cx	1	116.97	3.90	30.00	12.28
	D	1	73.07	7.73	9.45	18.45
	Dc	1	13.46	7.09	1.90	37.90
	Dx	1	183.70	6.12	30.00	12.00
	13	1	14.25	0.49	29.10	6.23

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	51.06	2.57	30.46	1.00	0.00	226.85	226.85
	Bc	1	0.00	0.00	✓	5.45	1.28	24.41	1.00	22.09	163.37	185.47
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	36.01	1.80	25.14	1.00	0.00	186.72	186.72
	Cc	1	0.00	0.00	✓	3.70	0.92	22.82	1.00	18.97	131.33	150.30
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.11	0.62	17.80	1.00	0.00	82.02	82.02
	Dc	1	0.00	0.00	✓	4.84	0.67	14.51	1.00	8.88	96.81	105.69
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.01			1.00	0.00	0.21	0.21

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	68	11.48	0.72	2.26	2.26
		2	1	50	11000	68	11.48	0.72	2.26	2.26
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6233	1		12367	0.00	68	68
		2	50	50	0		11000	6233	1		12367	0.00	68	68
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.48	0.16	0.00	2.26	2.26
		2	5.00	11.48	0.16	0.00	2.26	2.26
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.72	10.00	7.22	0.00	0.00	0.00
		2	0.72	10.00	7.22	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.20	0.99	14.48
		2	0.30	0.23	1.31	16.48
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.72	1.00	0.00	2.26	2.26
		2	0.00	0.00	0.72	1.00	0.00	2.26	2.26
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	25/03/2022 08:29:03	25/03/2022 08:29:16	17:00	120	989.60	63.15	85.83	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	86	0	14201	1056	15.07	844.38	42.96	937.29

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	156	44.21	52.32	52.32

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	14501	14501	0		86		17	1212	1218

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	15.68	55.25	7.90	896.70	896.70	23.63	3194.55	231.42	42.96	42.96

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	196.96	49.94	22.00	0.00	22.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	842.40	91.42	9.21

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	49.94	0.00	939.66	989.60

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	56.5	94.4	96.2	0.0	0.0	0.0	0.0
	2	77.6	0.0	30.4	32.2	0.0	0.0	0.0	0.0
	3	65.7	91.5	0.0	20.4	0.0	0.0	0.0	0.0
	4	58.6	84.4	122.3	124.1	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	80.1	0.0	0.0
	6	0.0	0.0	0.0	0.0	80.1	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	535		56.51		535	56.51
8	1	3	113		94.41		113	94.41
16	3	1	108		65.73		108	65.73
17	3	4	18		20.35		18	20.35
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	21		122.27		21	122.27
25	4	2	1145		84.37		1145	84.37
26	2	1	692		77.63		692	77.63
31	2	3	95		30.45		95	30.45
32	6	5		50		80.06	50	80.06
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		80.06	50	80.06
137	4	1	343		58.65		343	58.65
140	2	4	722		32.25		722	32.25
141	3	2	157		91.46		157	91.46
142	1	4	503		96.21		503	96.21
143	4	4	36		124.07		36	124.07

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			283	5400	100	0.00	5	1808	2.12	0.02	0.00	0.00	
Ac	1	(untitled)	3			1953	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				229	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1545 <	3600	64	0.00	86	17	46.37	34.37	89.81	51.03 +	30.
Bc	1	(untitled)	4	3	B	957 <	3600	44	0.00	77	30	45.10	42.78	15.75	5.46 +	24.
Bx	1	(untitled)				1279	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1151 <	3600	46	0.00	82	23	44.51	38.20	91.98	35.99 +	25.
Cc	1	(untitled)	1	1	B	1359	3600	62	0.00	72	39	26.00	24.24	8.17	3.70	22.
Cx	1	(untitled)				1143	Unrestricted	130	10.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1509	3600	63	0.00	65	53	18.45	12.63	36.05	15.11	17.
Dc	1	(untitled)	2	2	B	673	3600	27	0.00	67	50	37.90	35.65	25.87	4.84	14.
Dx	1	(untitled)				1837	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			283	1800	100	0.00	16	536	6.23	0.19	0.00	0.01	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	68	1	12367	14.48	11.48	0.72	100	0
	2	(untitled)		1	C	50	11000	68	1	12367	16.48	11.48	0.72	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	841.00	87.43	9.62	51.56	7.90	844.38	42.96	49.94	937.29
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.99	0.35	3.68	0.00	52.32	0.00	0.00	52.32
TOTAL	842.40	91.42	9.21	55.25	7.90	896.70	42.96	49.94	989.60

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - 2032 DO NOTHING
D7 - 2032 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	25/03/2022 08:29:16	25/03/2022 08:29:30	17:00	120	1023.27	65.02	87.38	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO NOTHING		D7	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	291	291
Ac	1	1967	1967
Ax	1	234	234
B	1	1597	1597
Bc	1	943	943
Bx	1	1315	1315
C	1	1144	1144
Cc	1	1429	1429
Cx	1	1111	1111
D	1	1530	1530
Dc	1	671	671
Dx	1	1902	1902
13	1	291	291

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	533	112	499	0	0	0	0
	2	671	0	100	759	0	0	0	0
	3	107	165	0	19	0	0	0	0
	4	333	1204	22	38	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	533
	8		1	3	C/1, Dc/1, Ax/1	Normal	112
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	107
	17		3	4	13/1, A/1, Bx/1	Normal	19
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	22
	25		4	2	B/1, Cc/1, Dx/1	Normal	1204
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	671
	31		2	3	D/1, Ax/1	Normal	100
	137		4	1	B/1, Cx/1	Normal	333
	140		2	4	D/1, Ac/1, Bx/1	Normal	759
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	165
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	499
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	38

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	31, 81

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	88	31	63	1	7
	2	✓	2	A	36	81	45	1	7

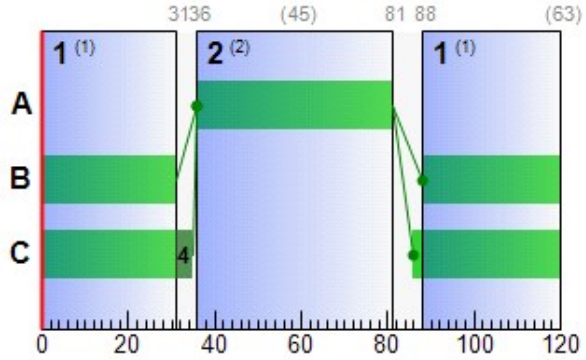
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	36	81	45
	B	1	✓	88	31	63
	C	1	✓	86	35	69

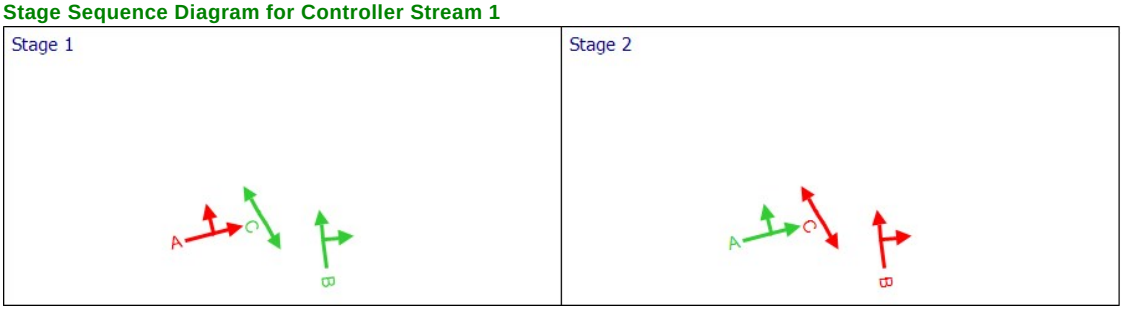
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	36	81	45
Cc	1	1	1	B	88	31	63

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	65, 33

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	38	65	27	1	7
	2	✓	2	A	70	33	63	1	7

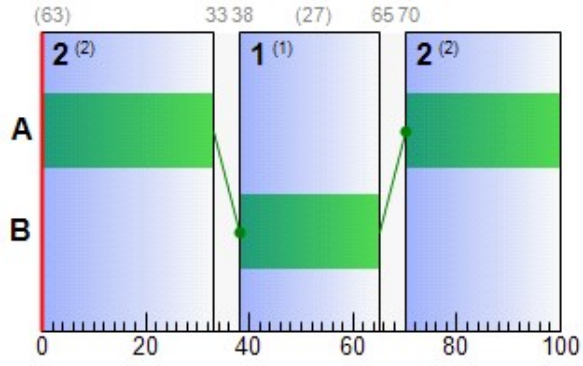
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	70	33	63
	B	1	✓	38	65	27

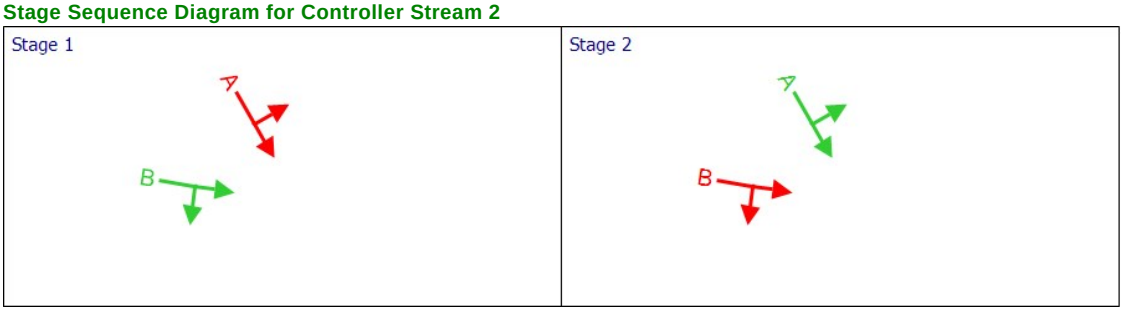
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	70	33	63
Dc	1	2	2	B	38	65	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	27, 97, 113

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

	To			
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	114	27	43	1	7
	2	✓	2	A	32	97	65	1	7
	3	✓	3	C	108	113	5	1	5

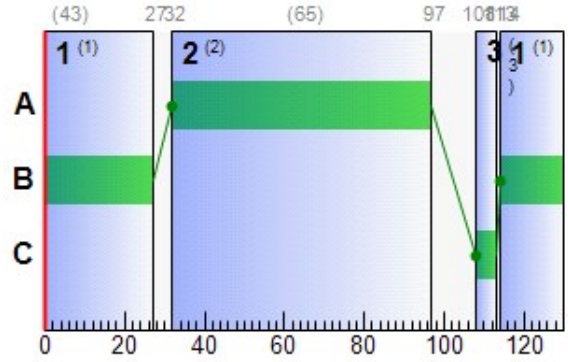
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	32	97	65
	B	1	✓	114	27	43
	C	1	✓	108	113	5

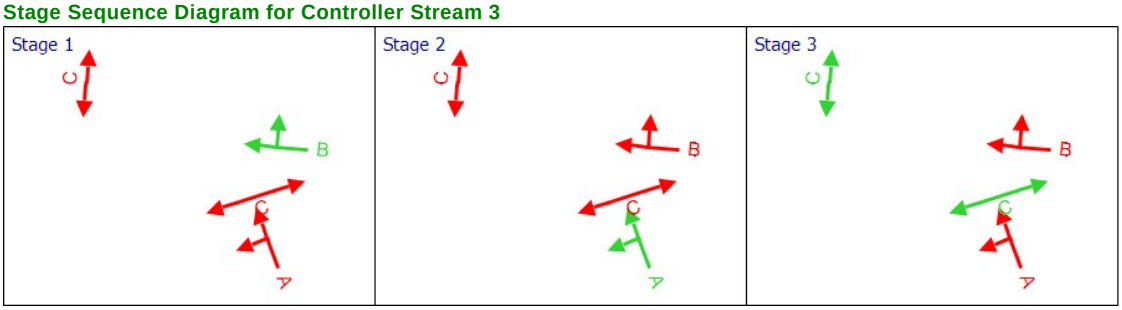
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	32	97	65
Bc	1	4	3	B	114	27	43

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	5	1756	291	5400	100	0.02	0.00	0.03	0.02	0.00	0.02
	Ac	1	0	Unrestricted	1967	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	234	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	87	14	1597	3600	65	34.91	53.50	153.81	219.94	18.25	238.19
	Bc	1	77	29	943	3600	43	43.76	5.51	110.23	162.76	1.91	188.63
	Bx	1	0	Unrestricted	1315	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	83	21	1144	3600	45	39.62	36.28	198.57	178.80	13.41	192.21
	Cc	1	74	34	1429	3600	63	24.45	3.87	77.38	137.83	1.45	162.56
	Cx	1	0	Unrestricted	1111	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	66	51	1530	3600	63	12.81	15.15	89.93	77.31	6.84	84.15
	Dc	1	67	50	671	3600	27	35.59	4.83	96.69	94.20	2.18	105.16
	Dx	1	0	Unrestricted	1902	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	16	519	291	1800	100	0.19	0.02	0.18	0.22	0.00	0.22

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	291	291	0		5400	5400	5		1756	0.00	100	10
	Ac	1	1967	1967	0		Unrestricted	Unrestricted	0		Unrestricted	0.52	100	10
	Ax	1	234	234	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	100	10
	B	1	1597	1597	0		3600	1828	87		14	0.00	65	66
	Bc	1	943	943	0		3600	1218	77		29	1.14	43	44
	Bx	1	1315	1315	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	100	10
	C	1	1144	1144	0		3600	1380	83		21	0.00	45	46
	Cc	1	1429	1429	0		3600	1920	74		34	0.85	63	64
	Cx	1	1111	1111	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	130	13
	D	1	1530	1530	0		3600	2304	66		51	0.28	63	64
	Dc	1	671	671	0		3600	1008	67		50	1.07	27	28
	Dx	1	1902	1902	0		Unrestricted	Unrestricted	0		Unrestricted	0.44	120	12
	13	1	291	291	0		1800	1800	16		519	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	34.91	12.56	2.93	219.94	219.94	91.13	1375.25	80.06	18.25	18.25
	Bc	1	2.40	43.76	10.10	1.37	162.76	162.76	16.15	115.38	36.88	1.91	1.91
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	39.62	10.63	1.96	178.80	178.80	93.51	1011.62	58.13	13.41	13.41
	Cc	1	1.80	24.45	8.60	1.11	137.83	137.83	8.11	83.33	32.55	1.45	1.45
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	12.81	4.79	0.65	77.31	77.31	35.63	521.73	23.46	6.84	6.84
	Dc	1	2.40	35.59	5.94	0.70	94.20	94.20	25.91	150.00	23.83	2.18	2.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.19	0.00	0.02	0.22	0.22	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.03	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	53.50	34.78	153.81	3.11	0.00	0.00	2.93	31.32	0.00	0.00	0.00	
	Bc	1	5.00	5.51	5.00	110.23	0.03	0.48	23.95	1.34	24.40	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	36.28	18.27	198.57	4.33	0.00	0.00	1.96	25.48	0.00	0.00	0.00	
	Cc	1	5.00	3.87	5.00	77.38	0.00	0.47	23.27	1.09	23.72	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	D	1	0.00	15.15	16.84	89.93	0.00	0.00	0.00	0.65	18.08	0.00	0.00	0.00	
	Dc	1	5.00	4.83	5.00	96.69	0.00	0.18	8.77	0.67	14.46	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.02	8.76	0.18	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	5.11	0.17	29.73	2.13
	Ac	1	29.51	0.98	30.00	1.80
	Ax	1	23.40	0.78	30.00	12.00
	B	1	159.70	20.81	7.67	46.91
	Bc	1	18.86	12.07	1.56	46.08
	Bx	1	131.50	4.38	30.00	12.00
	C	1	60.10	14.59	4.12	45.93
	Cc	1	21.44	10.41	2.06	26.22
	Cx	1	113.69	3.79	30.00	12.28
	D	1	74.08	7.91	9.36	18.62
	Dc	1	13.42	7.05	1.90	37.85
	Dx	1	190.20	6.34	30.00	12.00
	13	1	14.65	0.50	29.07	6.24

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	53.55	2.97	31.37	1.00	0.00	238.19	238.19
	Bc	1	0.00	0.00	✓	5.50	1.33	24.39	1.00	23.95	164.67	188.63
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	36.31	1.99	25.50	1.00	0.00	192.21	192.21
	Cc	1	0.00	0.00	✓	3.86	1.09	23.71	1.00	23.27	139.29	162.56
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.15	0.66	18.08	1.00	0.00	84.15	84.15
	Dc	1	0.00	0.00	✓	4.83	0.67	14.46	1.00	8.77	96.38	105.16
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.02			1.00	0.00	0.22	0.22

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	69	11.05	0.71	2.18	2.18
		2	1	50	11000	69	11.05	0.71	2.18	2.18
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6325	1		12550	0.00	69	69
		2	50	50	0		11000	6325	1		12550	0.00	69	69
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.05	0.15	0.00	2.18	2.18
		2	5.00	11.05	0.15	0.00	2.18	2.18
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.71	10.00	7.08	0.00	0.00	0.00
		2	0.71	10.00	7.08	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.20	1.02	14.05
		2	0.30	0.22	1.35	16.05
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.71	1.00	0.00	2.18	2.18
		2	0.00	0.00	0.71	1.00	0.00	2.18	2.18
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	25/03/2022 08:29:16	25/03/2022 08:29:30	17:00	120	1023.27	65.02	87.38	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	87	0	14425	1056	15.31	871.09	44.04	971.13

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	158	44.07	52.15	52.15

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	14725	14725	0		87		14	1214	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.05	15.90	56.29	8.73	923.24	923.24	23.85	3257.33	254.91	44.04	44.04

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	198.57	56.00	22.00	0.00	22.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	857.05	93.78	9.14

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	56.00	0.00	967.28	1023.27

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	57.9	95.8	97.6	0.0	0.0	0.0	0.0
	2	78.8	0.0	30.6	32.4	0.0	0.0	0.0	0.0
	3	66.7	92.7	0.0	20.4	0.0	0.0	0.0	0.0
	4	59.2	85.1	123.0	124.8	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	79.6	0.0	0.0
	6	0.0	0.0	0.0	0.0	79.6	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	533		57.93		533	57.93
8	1	3	112		95.77		112	95.77
16	3	1	107		66.72		107	66.72
17	3	4	19		20.36		19	20.36
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	22		122.98		22	122.98
25	4	2	1204		85.13		1204	85.13
26	2	1	671		78.78		671	78.78
31	2	3	100		30.62		100	30.62
32	6	5		50		79.63	50	79.63
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		79.63	50	79.63
137	4	1	333		59.19		333	59.19
140	2	4	759		32.42		759	32.42
141	3	2	165		92.66		165	92.66
142	1	4	499		97.57		499	97.57
143	4	4	38		124.78		38	124.78

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			291	5400	100	0.00	5	1756	2.13	0.02	0.00	0.00	
Ac	1	(untitled)	3			1967	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				234	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1597 <	3600	65	0.00	87	14	46.91	34.91	91.13	53.50 +	31.
Bc	1	(untitled)	4	3	B	943 <	3600	43	0.00	77	29	46.08	43.76	16.15	5.51 +	24.
Bx	1	(untitled)				1315	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1144 <	3600	45	0.00	83	21	45.93	39.62	93.51	36.28 +	25.
Cc	1	(untitled)	1	1	B	1429	3600	63	0.00	74	34	26.22	24.45	8.11	3.87	23.
Cx	1	(untitled)				1111	Unrestricted	130	10.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1530	3600	63	0.00	66	51	18.62	12.81	35.63	15.15	18.
Dc	1	(untitled)	2	2	B	671	3600	27	0.00	67	50	37.85	35.59	25.91	4.83	14.
Dx	1	(untitled)				1902	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			291	1800	100	0.00	16	519	6.24	0.19	0.00	0.02	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	69	1	12550	14.05	11.05	0.71	100	0
	2	(untitled)		1	C	50	11000	69	1	12550	16.05	11.05	0.71	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	855.65	89.80	9.53	52.62	8.73	871.09	44.04	56.00	971.13
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.98	0.35	3.67	0.00	52.15	0.00	0.00	52.15
TOTAL	857.05	93.78	9.14	56.29	8.73	923.24	44.04	56.00	1023.27

< = adjusted flow warning (upstream links/traffic streams are over-saturated)

** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*

^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%

+ = average link/traffic stream excess queue is greater than 0

P.I. = PERFORMANCE INDEX

A8 - 2032 DO SOMETHING
D8 - 2032 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	25/03/2022 08:29:30	25/03/2022 08:29:44	17:00	120	1117.19	70.14	90.17	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 DO SOMETHING		D8	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	298	298
Ac	1	2050	2050
Ax	1	240	240
B	1	1623	1623
Bc	1	1004	1004
Bx	1	1344	1344
C	1	1207	1207
Cc	1	1429	1429
Cx	1	1198	1198
D	1	1584	1584
Dc	1	706	706
Dx	1	1930	1930
13	1	298	298

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	561	118	528	0	0	0	0
	2	725	0	100	759	0	0	0	0
	3	114	165	0	19	0	0	0	0
	4	359	1204	22	38	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	561
	8		1	3	C/1, Dc/1, Ax/1	Normal	118
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	114
	17		3	4	13/1, A/1, Bx/1	Normal	19
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	22
	25		4	2	B/1, Cc/1, Dx/1	Normal	1204
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	725
	31		2	3	D/1, Ax/1	Normal	100
	137		4	1	B/1, Cx/1	Normal	359
	140		2	4	D/1, Ac/1, Bx/1	Normal	759
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	165
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	528
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	38

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	117, 49

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	56	117	61	1	7
	2	✓	2	A	2	49	47	1	7

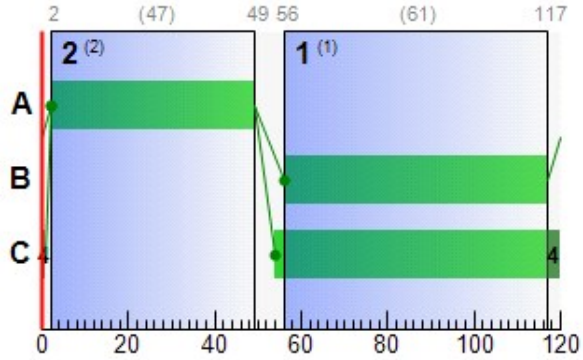
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	2	49	47
	B	1	✓	56	117	61
	C	1	✓	54	1	67

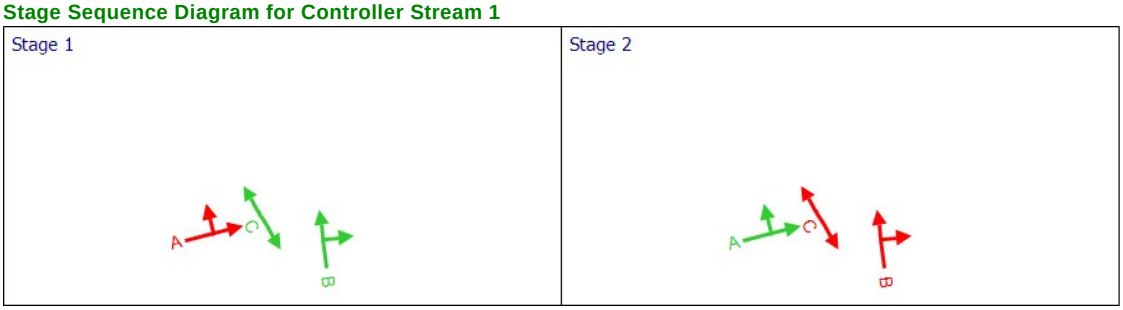
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	2	49	47
Cc	1	1	1	B	56	117	61

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	64, 30

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	35	64	29	1	7
	2	✓	2	A	69	30	61	1	7

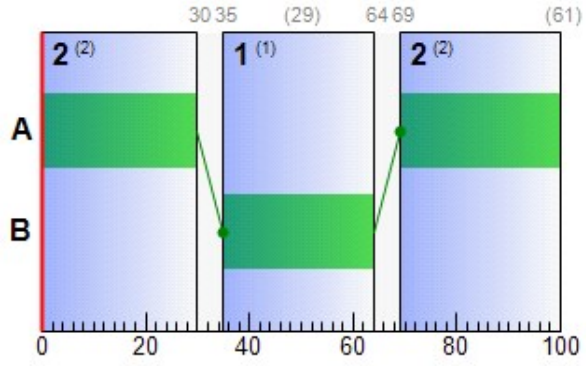
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	69	30	61
	B	1	✓	35	64	29

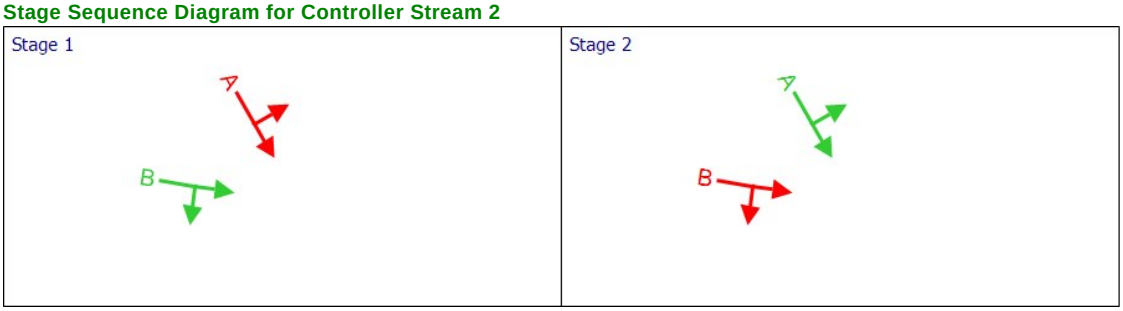
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	69	30	61
Dc	1	2	2	B	35	64	29

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	53, 122, 8

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	9	53	44	1	7
	2	✓	2	A	58	122	64	1	7
	3	✓	3	C	3	8	5	1	5

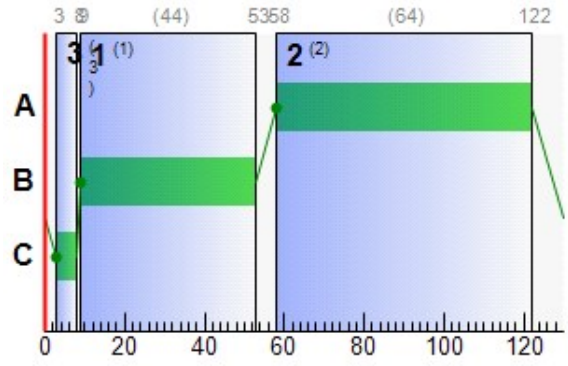
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	58	122	64
	B	1	✓	9	53	44
	C	1	✓	3	8	5

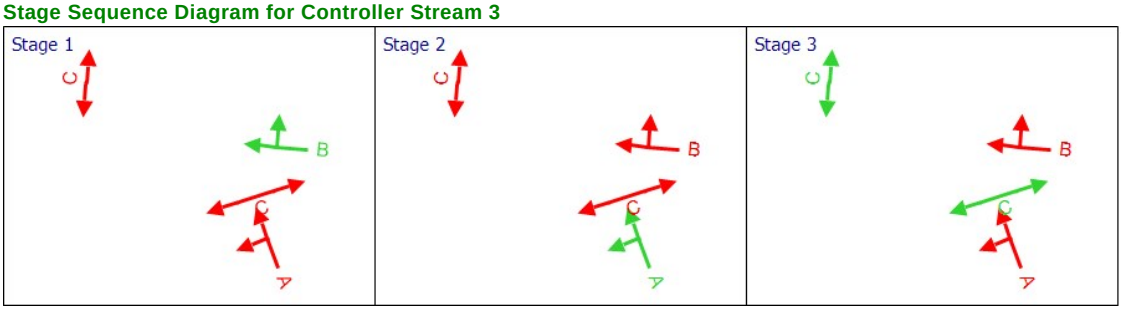
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	58	122	64
Bc	1	4	3	B	9	53	44

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	6	1712	298	5400	100	0.02	0.00	0.03	0.02	0.00	0.02
	Ac	1	0	Unrestricted	2050	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	240	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	90	11	1623	3600	64	38.29	57.12	164.22	245.11	19.39	264.50
	Bc	1	81	24	1004	3600	44	44.71	5.87	117.41	177.04	2.03	215.37
	Bx	1	0	Unrestricted	1344	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	84	19	1207	3600	47	38.81	38.33	209.76	184.78	14.13	198.91
	Cc	1	77	30	1429	3600	61	26.52	4.06	81.27	149.47	1.53	180.51
	Cx	1	0	Unrestricted	1198	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	71	41	1584	3600	61	14.86	15.36	91.18	92.82	6.93	99.75
	Dc	1	65	53	706	3600	29	33.77	4.79	95.76	94.05	2.16	105.41
	Dx	1	0	Unrestricted	1930	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	17	504	298	1800	100	0.20	0.02	0.19	0.23	0.00	0.23

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	298	298	0		5400	5400	6		1712	0.00	100	10
	Ac	1	2050	2050	0		Unrestricted	Unrestricted	0		Unrestricted	0.52	100	10
	Ax	1	240	240	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	100	10
	B	1	1623	1623	0		3600	1800	90		11	0.00	64	65
	Bc	1	1004	1004	0		3600	1246	81		24	1.14	44	45
	Bx	1	1344	1344	0		Unrestricted	Unrestricted	0		Unrestricted	0.43	100	10
	C	1	1207	1207	0		3600	1440	84		19	0.00	47	48
	Cc	1	1429	1429	0		3600	1860	77		30	0.88	61	62
	Cx	1	1198	1198	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	130	13
	D	1	1584	1584	0		3600	2232	71		41	0.34	61	62
	Dc	1	706	706	0		3600	1080	65		53	1.06	29	30
	Dx	1	1930	1930	0		Unrestricted	Unrestricted	0		Unrestricted	0.44	120	12
	13	1	298	298	0		1800	1800	17		504	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	38.29	13.34	3.92	245.11	245.11	95.27	1439.48	106.77	19.39	19.39
	Bc	1	2.40	44.71	10.75	1.72	177.04	177.04	16.14	115.38	46.64	2.03	2.03
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	38.81	10.90	2.12	184.78	184.78	93.37	1064.30	62.69	14.13	14.13
	Cc	1	1.80	26.52	9.23	1.30	149.47	149.47	8.51	83.33	38.31	1.53	1.53
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	14.86	5.67	0.86	92.82	92.82	34.89	521.74	30.92	6.93	6.93
	Dc	1	2.40	33.77	5.98	0.65	94.05	94.05	24.39	150.00	22.19	2.16	2.16
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.20	0.00	0.02	0.23	0.23	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.03	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			4.00	0.00	4.00	
	B	1	0.00	57.12	34.78	164.22	4.34	0.00	0.00	3.92	33.22	0.00	0.00	0.00	
	Bc	1	5.00	5.87	5.00	117.41	0.07	0.73	36.30	1.70	25.97	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	38.33	18.27	209.76	5.08	0.00	0.00	2.12	26.26	0.00	0.00	0.00	
	Cc	1	5.00	4.06	5.00	81.27	0.00	0.59	29.51	1.29	24.71	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			9.00	0.00	9.00	
	D	1	0.00	15.36	16.84	91.18	0.00	0.00	0.00	0.86	19.78	0.00	0.00	0.00	
	Dc	1	5.00	4.79	5.00	95.76	0.00	0.18	9.20	0.62	14.74	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.02	8.76	0.19	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	5.23	0.18	29.73	2.13
	Ac	1	30.75	1.03	30.00	1.80
	Ax	1	24.00	0.80	30.00	12.00
	B	1	162.30	22.67	7.16	50.29
	Bc	1	20.08	13.12	1.53	47.05
	Bx	1	134.40	4.48	30.00	12.00
	C	1	63.40	15.13	4.19	45.12
	Cc	1	21.44	11.23	1.91	28.28
	Cx	1	122.59	4.09	30.00	12.28
	D	1	76.70	9.09	8.43	20.67
	Dc	1	14.12	7.07	2.00	36.05
	Dx	1	193.00	6.43	30.00	12.00
	13	1	15.01	0.52	29.05	6.24

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	57.22	4.02	33.33	1.00	0.00	264.50	264.50
	Bc	1	0.00	0.00	✓	5.85	1.69	25.95	1.00	36.30	179.07	215.37
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	38.35	2.14	26.28	1.00	0.00	198.91	198.91
	Cc	1	0.00	0.00	✓	4.06	1.28	24.70	1.00	29.51	151.00	180.51
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.36	0.87	19.79	1.00	0.00	99.75	99.75
	Dc	1	0.00	0.00	✓	4.79	0.62	14.74	1.00	9.20	96.21	105.41
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.02			1.00	0.00	0.23	0.23

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	67	11.93	0.74	2.35	2.35
		2	1	50	11000	67	11.93	0.74	2.35	2.35
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6142	1		12183	0.00	67	67
		2	50	50	0		11000	6142	1		12183	0.00	67	67
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.93	0.17	0.00	2.35	2.35
		2	5.00	11.93	0.17	0.00	2.35	2.35
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.74	10.00	7.36	0.00	0.00	0.00
		2	0.74	10.00	7.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.21	0.96	14.93
		2	0.30	0.24	1.28	16.93
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.74	1.00	0.00	2.35	2.35
		2	0.00	0.00	0.74	1.00	0.00	2.35	2.35
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
8	25/03/2022 08:29:30	25/03/2022 08:29:44	17:00	120	1117.19	70.14	90.17	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	90	0	14911	1056	16.04	943.53	46.16	1064.70

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	154	44.36	52.49	52.49

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	15211	15211	0		90		11	1210	1216

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	16.60	59.56	10.59	996.02	996.02	24.20	3374.23	307.52	46.16	46.16

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	209.76	75.01	21.00	0.00	21.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	884.42	99.83	8.86

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	75.01	0.00	1042.19	1117.19

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	57.1	93.2	95.0	0.0	0.0	0.0	0.0
	2	81.8	0.0	32.7	34.5	0.0	0.0	0.0	0.0
	3	67.7	95.7	0.0	20.4	0.0	0.0	0.0	0.0
	4	62.6	90.6	126.6	128.4	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	80.5	0.0	0.0
	6	0.0	0.0	0.0	0.0	80.5	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	561		57.12		561	57.12
8	1	3	118		93.16		118	93.16
16	3	1	114		67.69		114	67.69
17	3	4	19		20.37		19	20.37
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	22		126.62		22	126.62
25	4	2	1204		90.57		1204	90.57
26	2	1	725		81.79		725	81.79
31	2	3	100		32.67		100	32.67
32	6	5		50		80.50	50	80.50
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		80.50	50	80.50
137	4	1	359		62.57		359	62.57
140	2	4	759		34.47		759	34.47
141	3	2	165		95.70		165	95.70
142	1	4	528		94.96		528	94.96
143	4	4	38		128.42		38	128.42

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			298	5400	100	0.00	6	1712	2.13	0.02	0.00	0.00	
Ac	1	(untitled)	3			2050	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				240	Unrestricted	100	4.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1623 <	3600	64	0.00	90	11	50.29	38.29	95.27	57.12 +	33.
Bc	1	(untitled)	4	3	B	1004 <	3600	44	0.00	81	24	47.05	44.71	16.14	5.87 +	25.
Bx	1	(untitled)				1344	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1207 <	3600	47	0.00	84	19	45.12	38.81	93.37	38.33 +	26.
Cc	1	(untitled)	1	1	B	1429	3600	61	0.00	77	30	28.28	26.52	8.51	4.06	24.
Cx	1	(untitled)				1198	Unrestricted	130	9.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1584	3600	61	0.00	71	41	20.67	14.86	34.89	15.36	19.
Dc	1	(untitled)	2	2	B	706	3600	29	0.00	65	53	36.05	33.77	24.39	4.79	14.
Dx	1	(untitled)				1930	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			298	1800	100	0.00	17	504	6.24	0.20	0.00	0.02	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	67	1	12183	14.93	11.93	0.74	100	0
	2	(untitled)		1	C	50	11000	67	1	12183	16.93	11.93	0.74	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	883.02	95.82	9.21	55.86	10.59	943.53	46.16	75.01	1064.70
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.00	0.35	3.70	0.00	52.49	0.00	0.00	52.49
TOTAL	884.42	99.83	8.86	59.56	10.59	996.02	46.16	75.01	1117.19

< = adjusted flow warning (upstream links/traffic streams are over-saturated)

** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*

^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%

+ = average link/traffic stream excess queue is greater than 0

P.I. = PERFORMANCE INDEX

A9 - 2042 DO NOTHING
D9 - 2042 DO NOTHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	25/03/2022 08:29:44	25/03/2022 08:29:58	17:00	120	1115.18	70.11	90.33	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO NOTHING		D9	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO NOTHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	302	302
Ac	1	2033	2033
Ax	1	243	243
B	1	1651	1651
Bc	1	975	975
Bx	1	1360	1360
C	1	1182	1182
Cc	1	1478	1478
Cx	1	1148	1148
D	1	1582	1582
Dc	1	694	694
Dx	1	1966	1966
13	1	302	302

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	550	116	516	0	0	0	0
	2	693	0	104	785	0	0	0	0
	3	111	171	0	20	0	0	0	0
	4	344	1245	23	39	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	550
	8		1	3	C/1, Dc/1, Ax/1	Normal	116
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	111
	17		3	4	13/1, A/1, Bx/1	Normal	20
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	23
	25		4	2	B/1, Cc/1, Dx/1	Normal	1245
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	693
	31		2	3	D/1, Ax/1	Normal	104
	137		4	1	B/1, Cx/1	Normal	344
	140		2	4	D/1, Ac/1, Bx/1	Normal	785
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	171
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	516
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	39

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	46, 96

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	103	46	63	1	7
	2	✓	2	A	51	96	45	1	7

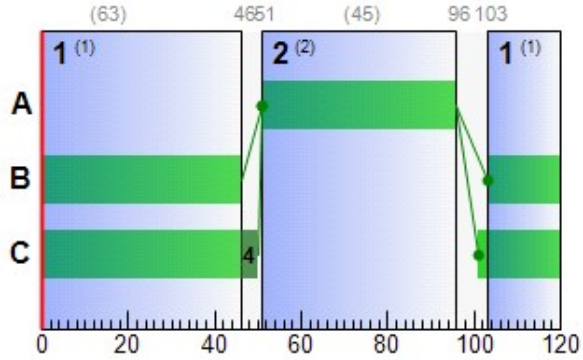
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	51	96	45
	B	1	✓	103	46	63
	C	1	✓	101	50	69

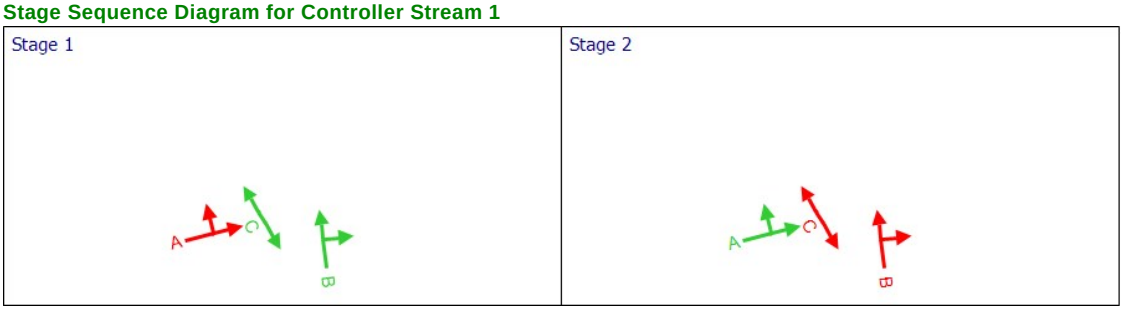
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	51	96	45
Cc	1	1	1	B	103	46	63

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	50, 18

Intergreen Matrix for Controller Stream 2

	To		
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

	To		
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

	To		
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	23	50	27	1	7
	2	✓	2	A	55	18	63	1	7

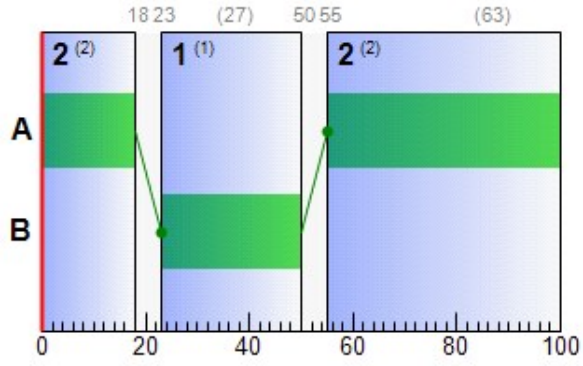
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	55	18	63
	B	1	✓	23	50	27

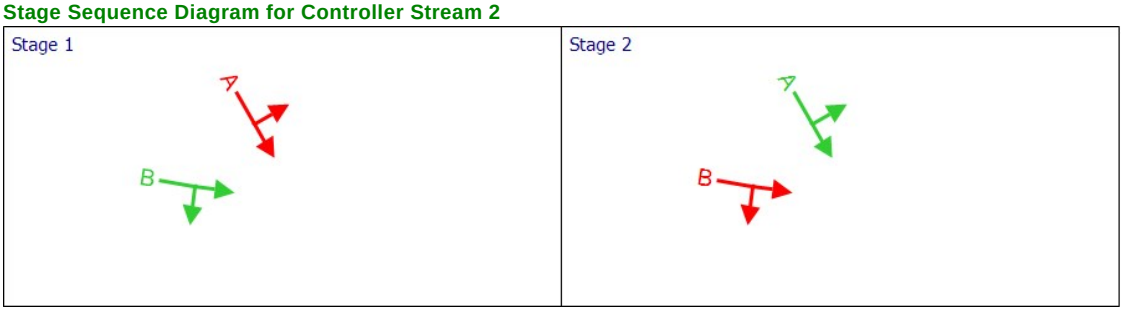
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	55	18	63
Dc	1	2	2	B	23	50	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	12, 82, 98

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	99	12	43	1	7
	2	✓	2	A	17	82	65	1	7
	3	✓	3	C	93	98	5	1	5

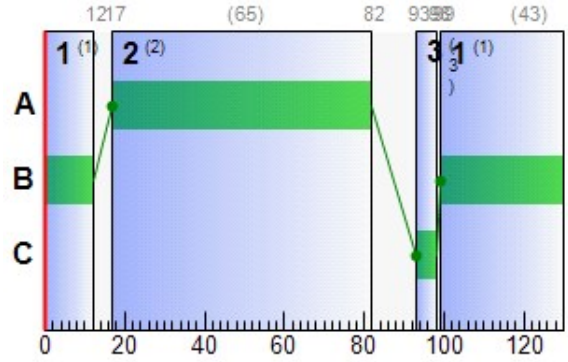
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	17	82	65
	B	1	✓	99	12	43
	C	1	✓	93	98	5

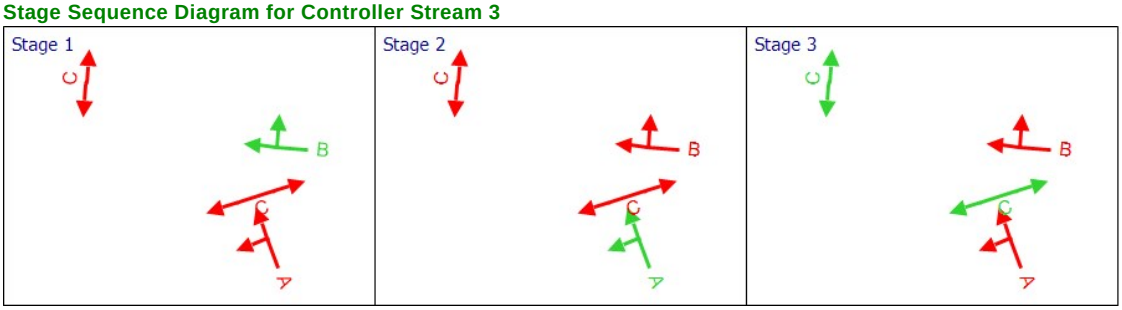
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	17	82	65
Bc	1	4	3	B	99	12	43

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	6	1688	302	5400	100	0.02	0.00	0.03	0.02	0.00	0.02
	Ac	1	0	Unrestricted	2033	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	243	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	90	11	1651	3600	65	37.82	58.11	167.08	246.28	19.69	265.98
	Bc	1	80	25	975	3600	43	45.11	5.80	116.01	173.48	2.01	209.41
	Bx	1	0	Unrestricted	1360	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	86	17	1182	3600	45	41.50	38.59	211.20	193.51	14.21	207.72
	Cc	1	77	30	1478	3600	63	25.36	4.08	81.54	147.87	1.53	178.48
	Cx	1	0	Unrestricted	1148	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	69	46	1582	3600	63	13.27	15.24	90.50	82.78	6.88	89.66
	Dc	1	69	45	694	3600	27	36.24	4.93	98.69	99.20	2.22	111.52
	Dx	1	0	Unrestricted	1966	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	17	496	302	1800	100	0.20	0.02	0.19	0.24	0.00	0.24

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	302	302	0		5400	5400	6		1688	0.00	100	10
	Ac	1	2033	2033	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	100	10
	Ax	1	243	243	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	100	10
	B	1	1651	1651	0		3600	1828	90		11	0.00	65	66
	Bc	1	975	975	0		3600	1218	80		25	1.15	43	44
	Bx	1	1360	1360	0		Unrestricted	Unrestricted	0		Unrestricted	0.43	100	10
	C	1	1182	1182	0		3600	1380	86		17	0.00	45	46
	Cc	1	1478	1478	0		3600	1920	77		30	0.85	63	64
	Cx	1	1148	1148	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	130	13
	D	1	1582	1582	0		3600	2304	69		46	0.30	63	64
	Dc	1	694	694	0		3600	1008	69		45	1.09	27	28
	Dx	1	1966	1966	0		Unrestricted	Unrestricted	0		Unrestricted	0.43	120	12
	13	1	302	302	0		1800	1800	17		496	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	37.82	13.35	4.00	246.28	246.28	95.13	1461.63	108.89	19.69	19.69
	Bc	1	2.40	45.11	10.57	1.65	173.48	173.48	16.42	115.38	44.72	2.01	2.01
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	41.50	11.15	2.47	193.51	193.51	95.88	1060.20	73.05	14.21	14.21
	Cc	1	1.80	25.36	9.10	1.31	147.87	147.87	8.26	83.33	38.72	1.53	1.53
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	13.27	5.08	0.75	82.78	82.78	34.68	521.74	26.86	6.88	6.88
	Dc	1	2.40	36.24	6.19	0.80	99.20	99.20	25.56	150.00	27.37	2.22	2.22
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.20	0.00	0.02	0.24	0.24	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.03	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			2.00	0.00	2.00	
	B	1	0.00	58.11	34.78	167.08	4.66	0.00	0.00	4.00	33.35	0.00	0.00	0.00	
	Bc	1	5.00	5.80	5.00	116.01	0.06	0.68	33.92	1.63	25.47	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	38.59	18.27	211.20	5.32	0.00	0.00	2.47	26.77	0.00	0.00	0.00	
	Cc	1	5.00	4.08	5.00	81.54	0.00	0.58	29.08	1.30	24.70	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			9.00	0.00	9.00	
	D	1	0.00	15.24	16.84	90.50	0.00	0.00	0.00	0.75	18.77	0.00	0.00	0.00	
	Dc	1	5.00	4.93	5.00	98.69	0.00	0.20	10.09	0.77	15.03	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.02	8.76	0.19	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	5.30	0.18	29.72	2.13
	Ac	1	30.50	1.02	30.00	1.80
	Ax	1	24.30	0.81	30.00	12.00
	B	1	165.10	22.85	7.23	49.82
	Bc	1	19.50	12.85	1.52	47.44
	Bx	1	136.00	4.53	30.00	12.00
	C	1	62.09	15.70	3.96	47.81
	Cc	1	22.17	11.14	1.99	27.13
	Cx	1	117.48	3.92	30.00	12.28
	D	1	76.60	8.38	9.14	19.08
	Dc	1	13.88	7.42	1.87	38.50
	Dx	1	196.60	6.55	30.00	12.00
	13	1	15.21	0.52	29.03	6.24

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	58.22	4.10	33.46	1.00	0.00	265.98	265.98
	Bc	1	0.00	0.00	✓	5.78	1.62	25.45	1.00	33.92	175.49	209.41
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	38.63	2.51	26.81	1.00	0.00	207.72	207.72
	Cc	1	0.00	0.00	✓	4.07	1.29	24.69	1.00	29.08	149.40	178.48
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.24	0.75	18.77	1.00	0.00	89.66	89.66
	Dc	1	0.00	0.00	✓	4.93	0.76	15.03	1.00	10.09	101.43	111.52
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.02			1.00	0.00	0.24	0.24

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	69	11.05	0.71	2.18	2.18
		2	1	50	11000	69	11.05	0.71	2.18	2.18
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6325	1		12550	0.00	69	69
		2	50	50	0		11000	6325	1		12550	0.00	69	69
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.05	0.15	0.00	2.18	2.18
		2	5.00	11.05	0.15	0.00	2.18	2.18
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.71	10.00	7.08	0.00	0.00	0.00
		2	0.71	10.00	7.08	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.20	1.02	14.05
		2	0.30	0.22	1.35	16.05
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.71	1.00	0.00	2.18	2.18
		2	0.00	0.00	0.71	1.00	0.00	2.18	2.18
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
9	25/03/2022 08:29:44	25/03/2022 08:29:58	17:00	120	1115.18	70.11	90.33	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	90	0	14916	1056	16.03	943.40	46.54	1063.03

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	158	44.07	52.15	52.15

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	15216	15216	0		90		11	1214	1220

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.05	16.59	59.11	11.00	995.55	995.55	24.39	3392.28	319.61	46.54	46.54

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	211.20	73.09	19.00	0.00	19.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	886.13	99.85	8.87

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	73.09	0.00	1042.09	1115.18

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	59.8	98.3	100.1	0.0	0.0	0.0	0.0
	2	80.6	0.0	31.1	32.9	0.0	0.0	0.0	0.0
	3	68.1	94.9	0.0	20.4	0.0	0.0	0.0	0.0
	4	62.1	89.0	127.4	129.2	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	79.6	0.0	0.0
	6	0.0	0.0	0.0	0.0	79.6	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	550		59.81		550	59.81
8	1	3	116		98.31		116	98.31
16	3	1	111		68.09		111	68.09
17	3	4	20		20.37		20	20.37
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	23		127.45		23	127.45
25	4	2	1245		88.95		1245	88.95
26	2	1	693		80.60		693	80.60
31	2	3	104		31.08		104	31.08
32	6	5		50		79.63	50	79.63
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		79.63	50	79.63
137	4	1	344		62.10		344	62.10
140	2	4	785		32.88		785	32.88
141	3	2	171		94.95		171	94.95
142	1	4	516		100.11		516	100.11
143	4	4	39		129.25		39	129.25

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M en of r que (Ve
A	1	(untitled)	3			302	5400	100	0.00	6	1688	2.13	0.02	0.00	0.00	
Ac	1	(untitled)	3			2033	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				243	Unrestricted	100	2.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1651 <	3600	65	0.00	90	11	49.82	37.82	95.13	58.11 +	33.
Bc	1	(untitled)	4	3	B	975 <	3600	43	0.00	80	25	47.44	45.11	16.42	5.80 +	25.
Bx	1	(untitled)				1360	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1182 <	3600	45	0.00	86	17	47.81	41.50	95.88	38.59 +	26.
Cc	1	(untitled)	1	1	B	1478	3600	63	0.00	77	30	27.13	25.36	8.26	4.08	24.
Cx	1	(untitled)				1148	Unrestricted	130	9.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1582	3600	63	0.00	69	46	19.08	13.27	34.68	15.24	18.
Dc	1	(untitled)	2	2	B	694	3600	27	0.00	69	45	38.50	36.24	25.56	4.93	15.
Dx	1	(untitled)				1966	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			302	1800	100	0.00	17	496	6.24	0.20	0.00	0.02	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	69	1	12550	14.05	11.05	0.71	100	0
	2	(untitled)		1	C	50	11000	69	1	12550	16.05	11.05	0.71	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	884.73	95.87	9.23	55.44	11.00	943.40	46.54	73.09	1063.03
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	3.98	0.35	3.67	0.00	52.15	0.00	0.00	52.15
TOTAL	886.13	99.85	8.87	59.11	11.00	995.55	46.54	73.09	1115.18

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A10 - 2042 DO SOMETHING
D10 - 2042 DO SOMETHING, *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	25/03/2022 08:29:58	25/03/2022 08:30:12	17:00	120	1229.05	76.25	93.17	B/1	0	0	B/1	13/1	B/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2042 DO SOMETHING		D10	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2042 DO SOMETHING,	AM			17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Extended - Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1, -15, -5, -1, 15, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05, 0.05		✓	1, 3, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
(ALL)	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		3
Ac	(untitled)		3
Ax	(untitled)		
B	(untitled)		4
Bc	(untitled)		4
Bx	(untitled)		
C	(untitled)		1
Cc	(untitled)		1
Cx	(untitled)		
D	(untitled)		2
Dc	(untitled)		2
Dx	(untitled)		
13			5

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	17.55							✓	Normal	
Ac	1	(untitled)			15.00				✓	3600			Normal	
Ax	1	(untitled)			100.00								Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	3600			✓		Normal	
Bc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Bx	1	(untitled)			100.00								Normal	
C	1	(untitled)		✓	52.53	✓	Sum of lanes	3600			✓		Normal	
Cc	1	(untitled)			15.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Cx	1	(untitled)			102.33								Normal	
D	1	(untitled)		✓	48.42	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dc	1	(untitled)			20.00	✓	Sum of lanes	3600	✓	3600	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
13	1			✓	50.36	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	2	(untitled)			
		3	(untitled)			
Ac	1	2	(untitled)			
		3	(untitled)			
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
		2	(untitled)			1800
Bc	1	1	(untitled)			1800
		2	(untitled)			1800
Bx	1	1	(untitled)			
		2	(untitled)			
C	1	2	(untitled)			1800
		3	(untitled)			1800
Cc	1	2	(untitled)			1800
		3	(untitled)			1800
Cx	1	1	(untitled)			
D	1	2	(untitled)			1800
		3	(untitled)			1800
Dc	1	1	(untitled)			1800
		2	(untitled)			1800
Dx	1	1	(untitled)			
		2	(untitled)			
13	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit	Degree of saturation limit (%)	Excess degree of saturation penalty (£)	Low degree of saturation penalty (£)
A	1	NetworkDefault	100	100	100		0.00	✓	2.00	50.00				
Ac	1	CTM	100	100	100		5.00	✓	5.00	50.00				
Ax	1	NetworkDefault	100	100	100		0.00							
B	1	NetworkDefault	100	100	100		0.00							
Bc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Bx	1	NetworkDefault	100	100	100		0.00							
C	1	NetworkDefault	100	100	100		0.00							
Cc	1	CTM	100	100	100		5.00	✓	3.00	50.00				
Cx	1	NetworkDefault	100	100	100		0.00							
D	1	CTM	100	100	100		0.00							
Dc	1	CTM	100	100	100		5.00	✓	3.00	50.00	✓	90	50.00	0.00
Dx	1	NetworkDefault	100	100	100		0.00							
13	1	NetworkDefault	100	100	100		0.00							

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ac	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	130
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dc	1	5.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
13	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	308	308
Ac	1	2116	2116
Ax	1	249	249
B	1	1677	1677
Bc	1	1035	1035
Bx	1	1389	1389
C	1	1246	1246
Cc	1	1478	1478
Cx	1	1234	1234
D	1	1636	1636
Dc	1	729	729
Dx	1	1995	1995
13	1	308	308

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
B	1	3	A	
Bc	1	3	B	
C	1	1	A	
Cc	1	1	B	
D	1	2	A	
Dc	1	2	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
C	1	6.30	30.00
D	1	5.81	30.00
13	1	6.04	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	13/1	A/1	2.11	30.00	✓	Nearside	43.49
Ac	1	1	D/1	Ac/1	1.80	30.00	✓	Straight	Straight Movement
Ax	1	1	Dc/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bc	1	1	Ac/1	Bc/1	2.40	30.00	✓	Offside	26.63
Bx	1	1	Ac/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cc	1	1	B/1	Cc/1	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	Bc/1	Cx/1	12.28	30.00	✓	Straight	Straight Movement
Dc	1	1	C/1	Dc/1	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	47.23
Ac	1	2	Dc/1	Ac/1	1.80	30.00	✓	Offside	29.67
Ax	1	2	D/1	Ax/1	12.00	30.00	✓	Nearside	45.39
Bc	1	2	A/1	Bc/1	2.40	30.00	✓	Straight	Straight Movement
Bx	1	2	A/1	Bx/1	12.00	30.00	✓	Nearside	48.50
Cc	1	2	Bc/1	Cc/1	1.80	30.00	✓	Offside	25.08
Cx	1	2	B/1	Cx/1	12.28	30.00	✓	Nearside	50.20
Dc	1	2	Cc/1	Dc/1	2.40	30.00	✓	Offside	26.32
Dx	1	2	Cc/1	Dx/1	12.00	30.00	✓	Offside	98.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
A	1	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Ac/1	100	0.00		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
(ALL)	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	C	
2	3	C	
3	3	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	1:2	2:1	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Lane Balancing									

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	579	122	545	0	0	0	0
	2	747	0	104	785	0	0	0	0
	3	117	171	0	20	0	0	0	0
	4	370	1245	23	39	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	0	0
	6	0	0	0	0	50	0	0	0
	7	0	0	0	0	0	0	0	50
	8	0	0	0	0	0	0	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	13/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E	1:1X	#00FFFF
	6	(untitled)	2:2E	2:2X	#FF00FF
	7	(untitled)	3:1E	3:1X	#008000
	8	(untitled)	3:2E	3:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	6		1	2	C/1, Dx/1	Normal	579
	8		1	3	C/1, Dc/1, Ax/1	Normal	122
	16		3	1	13/1, A/1, Bc/1, Cx/1	Normal	117
	17		3	4	13/1, A/1, Bx/1	Normal	20
	18		1	1	C/1, Dc/1, Ac/1, Bc/1, Cx/1	Normal	0
	19		2	2	D/1, Ac/1, Bc/1, Cc/1, Dx/1	Normal	0
	20		3	3	13/1, A/1, Bc/1, Cc/1, Dc/1, Ax/1	Normal	0
	22		4	3	B/1, Cc/1, Dc/1, Ax/1	Normal	23
	25		4	2	B/1, Cc/1, Dx/1	Normal	1245
	26		2	1	D/1, Ac/1, Bc/1, Cx/1	Normal	747
	31		2	3	D/1, Ax/1	Normal	104
	137		4	1	B/1, Cx/1	Normal	370
	140		2	4	D/1, Ac/1, Bx/1	Normal	785
	141		3	2	13/1, A/1, Bc/1, Cc/1, Dx/1	Normal	171
	142		1	4	C/1, Dc/1, Ac/1, Bx/1	Normal	545
	143		4	4	B/1, Cc/1, Dc/1, Ac/1, Bx/1	Normal	39

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	32		6	5	2:2E, 2:1X, 1:2E, 1:1X	Normal	50
	99		7	8	3:1E, 3:2X	Normal	50
	100		8	7	3:2E, 3:1X	Normal	50
	101		5	6	1:1E, 1:2X, 2:1E, 2:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	B, C	1
	2	A	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	C	1	2	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	63, 115

Intergreen Matrix for Controller Stream 1

		To		
		A	B	C
From	A		7	5
	B	5		
	C	1		

Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C	2	63	61	1	7
	2	✓	2	A	68	115	47	1	7

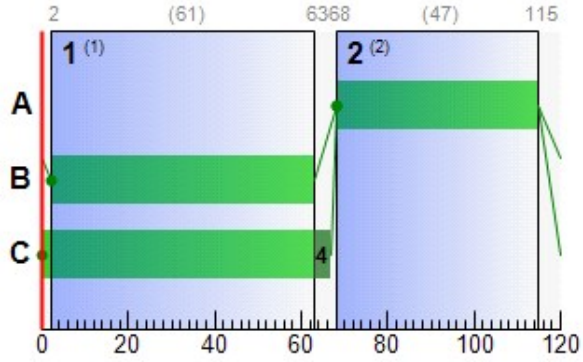
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	68	115	47
	B	1	✓	2	63	61
	C	1	✓	0	67	67

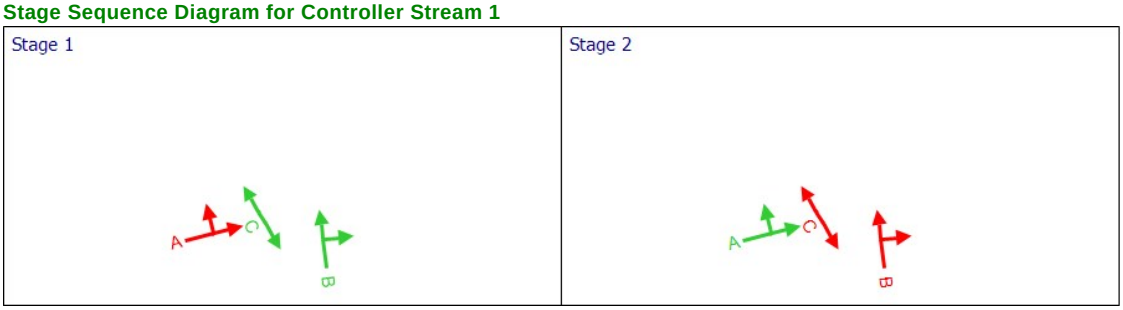
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
C	1	1	1	A	68	115	47
Cc	1	1	1	B	2	63	61

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	(untitled)		1	Manual	100

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
2	(ALL)	(untitled)	7	300	0	0	Unknown

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	B	1
	2	A	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 2	49, 16

Intergreen Matrix for Controller Stream 2

		To	
		A	B
From	A		5
	B	5	

Banned Stage transitions for Controller Stream 2

		To	
		1	2
From	1		
	2		

Interstage Matrix for Controller Stream 2

		To	
		1	2
From	1	0	5
	2	5	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	B	21	49	28	1	7
	2	✓	2	A	54	16	62	1	7

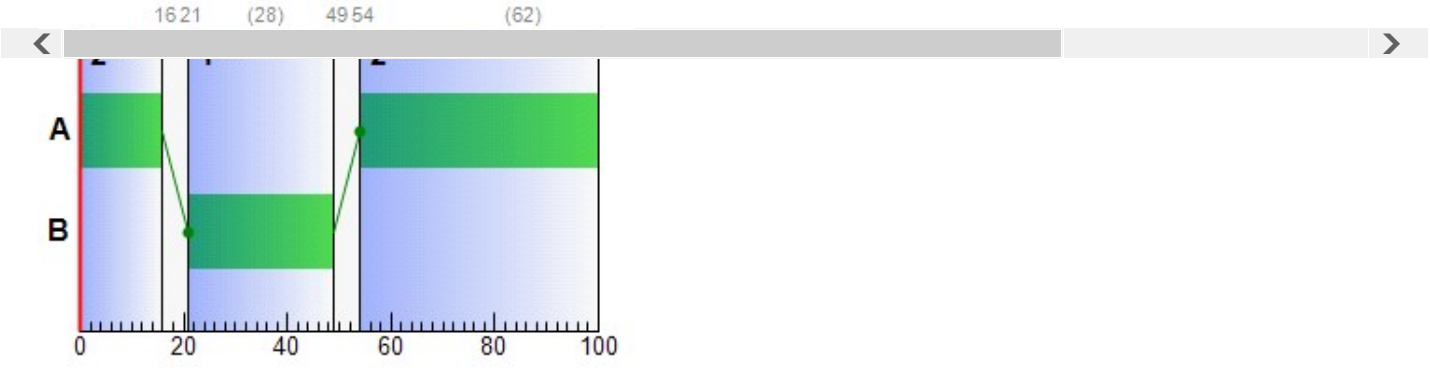
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	54	16	62
	B	1	✓	21	49	28

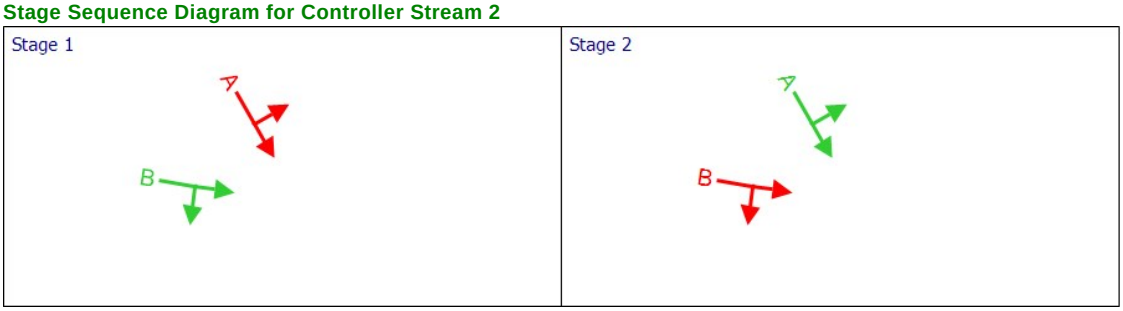
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
D	1	2	2	A	54	16	62
Dc	1	2	2	B	21	49	28

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Controller Stream 3

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
3	(untitled)		1	Manual	130

Controller Stream 3 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
3	Unspecified						Absolute

Controller Stream 3 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
3	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
3	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
3	1	B	1
	2	A	1
	3	C	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
3	1	(untitled)	Single	1, 2, 3	102, 41, 57

Intergreen Matrix for Controller Stream 3

		To		
		A	B	C
From	A		7	11
	B	5		9
	C	1	1	

Banned Stage transitions for Controller Stream 3

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 3

		To		
		1	2	3
From	1	0	5	9
	2	7	0	11
	3	1	1	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
3	1	✓	1	B	58	102	44	1	7
	2	✓	2	A	107	41	64	1	7
	3	✓	3	C	52	57	5	1	5

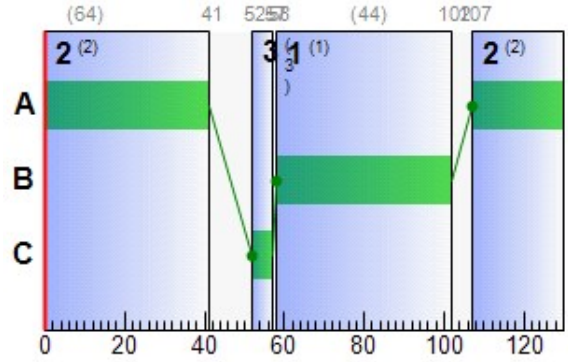
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
3	A	1	✓	107	41	64
	B	1	✓	58	102	44
	C	1	✓	52	57	5

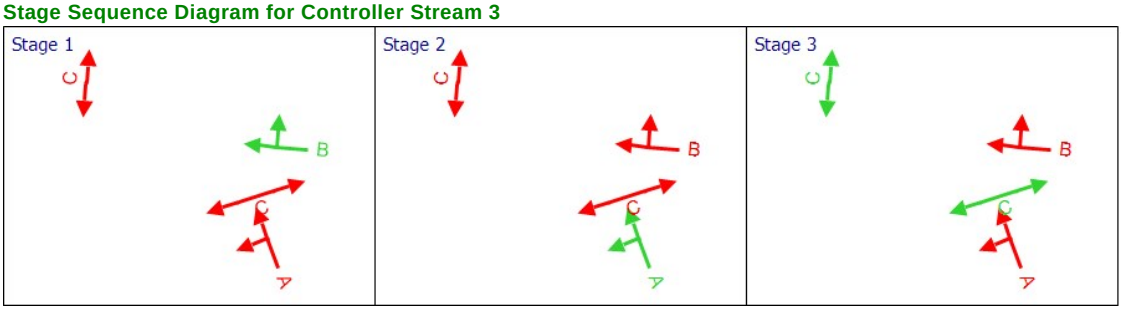
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
B	1	4	3	A	107	41	64
Bc	1	4	3	B	58	102	44

Phase Timings Diagram for Controller Stream 3



Stage Sequence Diagram for Controller Stream 3



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	6	1653	308	5400	100	0.02	0.00	0.03	0.02	0.00	0.02
	Ac	1	0	Unrestricted	2116	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	0	Unrestricted	249	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	93	7	1677	3600	64	42.72	62.10	178.53	282.61	21.12	303.73
	Bc	1	83	20	1035	3600	44	46.31	6.26	125.12	189.04	2.16	240.78
	Bx	1	0	Unrestricted	1389	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	87	16	1246	3600	47	40.78	40.75	223.04	200.42	14.99	215.41
	Cc	1	79	26	1478	3600	61	27.60	4.33	86.67	160.91	1.63	199.87
	Cx	1	0	Unrestricted	1234	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	72	39	1636	3600	62	14.59	15.42	91.56	94.16	6.96	101.12
	Dc	1	70	43	729	3600	28	35.77	4.98	99.65	102.84	2.25	115.38
	Dx	1	0	Unrestricted	1995	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	17	484	308	1800	100	0.21	0.02	0.20	0.25	0.00	0.25

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A	1	308	308	0		5400	5400	6		1653	0.00	100	10
	Ac	1	2116	2116	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	100	10
	Ax	1	249	249	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	100	10
	B	1	1677	1677	0		3600	1800	93		7	0.00	64	65
	Bc	1	1035	1035	0		3600	1246	83		20	1.15	44	45
	Bx	1	1389	1389	0		Unrestricted	Unrestricted	0		Unrestricted	0.42	100	10
	C	1	1246	1246	0		3600	1440	87		16	0.00	47	48
	Cc	1	1478	1478	0		3600	1860	79		26	0.89	61	62
	Cx	1	1234	1234	0		Unrestricted	Unrestricted	0		Unrestricted	0.68	130	13
	D	1	1636	1636	0		3600	2268	72		39	0.34	62	63
	Dc	1	729	729	0		3600	1044	70		43	1.09	28	29
	Dx	1	1995	1995	0		Unrestricted	Unrestricted	0		Unrestricted	0.43	120	12
	13	1	308	308	0		1800	1800	17		484	0.00	100	10

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	2.11	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
	Ac	1	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	42.72	14.17	5.73	282.61	282.61	100.44	1529.40	155.00	21.12	21.12
	Bc	1	2.40	46.31	11.21	2.10	189.04	189.04	16.66	115.38	57.05	2.16	2.16
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	6.30	40.78	11.43	2.68	200.42	200.42	95.92	1116.01	79.14	14.99	14.99
	Cc	1	1.80	27.60	9.76	1.57	160.91	160.91	8.77	83.33	46.31	1.63	1.63
	Cx	1	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.81	14.59	5.70	0.93	94.16	94.16	33.92	521.74	33.27	6.96	6.96
	Dc	1	2.40	35.77	6.40	0.84	102.84	102.84	24.56	150.00	29.08	2.25	2.25
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	13	1	6.04	0.21	0.00	0.02	0.25	0.25	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Max end of green queue (Veh)	Max end of red queue (Veh)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	0.00	6.11	0.03	0.00	0.00	0.00			0.00	0.00	0.00	
	Ac	1	5.00	0.00	5.00	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			2.00	0.00	2.00	
	B	1	0.00	62.10	34.78	178.53	6.27	0.00	0.00	5.73	36.01	0.00	0.00	0.00	
	Bc	1	5.00	6.26	5.00	125.12	0.11	0.99	49.57	2.09	27.10	0.00	0.00	0.00	
	Bx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	C	1	0.00	40.75	18.27	223.04	6.18	0.00	0.00	2.68	27.60	0.00	0.00	0.00	
	Cc	1	5.00	4.33	5.00	86.67	0.00	0.75	37.33	1.56	25.78	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.80	0.00	0.00	0.00	0.00			9.00	0.00	9.00	
	D	1	0.00	15.42	16.84	91.56	0.00	0.00	0.00	0.93	20.02	0.00	0.00	0.00	
	Dc	1	5.00	4.98	5.00	99.65	0.00	0.21	10.29	0.82	15.60	0.00	0.00	0.00	
	Dx	1	0.00	0.00	34.78	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	13	1	0.00	0.02	8.76	0.20	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	5.41	0.18	29.72	2.13
	Ac	1	31.74	1.06	30.00	1.80
	Ax	1	24.90	0.83	30.00	12.00
	B	1	167.70	25.49	6.58	54.72
	Bc	1	20.70	13.99	1.48	48.67
	Bx	1	138.90	4.63	30.00	12.00
	C	1	65.45	16.30	4.02	47.08
	Cc	1	22.17	12.06	1.84	29.37
	Cx	1	126.28	4.21	30.00	12.28
	D	1	79.22	9.27	8.54	20.40
	Dc	1	14.58	7.70	1.89	38.03
	Dx	1	199.50	6.65	30.00	12.00
	13	1	15.51	0.53	29.01	6.25

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Max End of Green Queue EoTS (Veh)	Max End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	0.00			1.00	0.00	0.02	0.02
	Ac	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B	1	0.00	0.00	✓	62.38	6.01	36.29	1.00	0.00	303.73	303.73
	Bc	1	0.00	0.00	✓	6.23	2.06	27.08	1.00	49.57	191.20	240.78
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	40.80	2.73	27.65	1.00	0.00	215.41	215.41
	Cc	1	0.00	0.00	✓	4.32	1.55	25.77	1.00	37.33	162.53	199.87
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D	1	0.00	0.00	✓	15.42	0.93	20.02	1.00	0.00	101.12	101.12
	Dc	1	0.00	0.00	✓	4.98	0.81	15.59	1.00	10.29	105.09	115.38
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	13	1	0.00	0.00	✓	0.02			1.00	0.00	0.25	0.25

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	1	50	11000	67	11.93	0.74	2.35	2.35
		2	1	50	11000	67	11.93	0.74	2.35	2.35
	2	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95
	3	1	12	50	11000	5	60.58	1.74	11.95	11.95
		2	12	50	11000	5	60.58	1.74	11.95	11.95

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effecti green (per cycle
17:00-18:00	1	1	50	50	0		11000	6142	1		12183	0.00	67	67
		2	50	50	0		11000	6142	1		12183	0.00	67	67
	2	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5
	3	1	50	50	0		11000	423	12		746	0.00	5	5
		2	50	50	0		11000	423	12		746	0.00	5	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	3.00	11.93	0.17	0.00	2.35	2.35
		2	5.00	11.93	0.17	0.00	2.35	2.35
	2	1	5.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95
	3	1	3.00	60.58	0.84	0.00	11.95	11.95
		2	3.00	60.58	0.84	0.00	11.95	11.95

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	0.74	10.00	7.36	0.00	0.00	0.00
		2	0.74	10.00	7.36	0.00	0.00	0.00
	2	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00
	3	1	1.74	10.00	17.36	0.00	0.00	0.00
		2	1.74	10.00	17.36	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.20	0.21	0.96	14.93
		2	0.30	0.24	1.28	16.93
	2	1	0.30	0.91	0.33	65.58
		2	0.20	0.88	0.23	63.58
	3	1	0.20	0.88	0.23	63.58
		2	0.20	0.88	0.23	63.58

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	0.74	1.00	0.00	2.35	2.35
		2	0.00	0.00	0.74	1.00	0.00	2.35	2.35
	2	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95
	3	1	0.00	0.00	1.74	1.00	0.00	11.95	11.95
		2	0.00	0.00	1.74	1.00	0.00	11.95	11.95

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
10	25/03/2022 08:29:58	25/03/2022 08:30:12	17:00	120	1229.05	76.25	93.17	B/1	0	0	B/1	13/1	B/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	93	0	15400	1056	16.96	1030.27	49.10	1176.56

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	12	300	154	44.36	52.49	52.49

Network Results: Flows and signals

Time Segment	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))	Effective green (s (per cycle))
17:00-18:00	15700	15700	0		93		7	1210	1216

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	7.04	17.48	62.38	13.87	1082.76	1082.76	24.94	3515.87	399.85	49.10	49.10

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
17:00-18:00	223.04	97.20	19.00	0.00	19.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
17:00-18:00	913.46	106.91	8.54

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	97.20	0.00	1131.86	1229.05

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	59.1	97.1	98.9	0.0	0.0	0.0	0.0
	2	83.2	0.0	32.4	34.2	0.0	0.0	0.0	0.0
	3	69.3	98.4	0.0	20.4	0.0	0.0	0.0	0.0
	4	67.0	96.1	134.1	135.9	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	80.5	0.0	0.0
	6	0.0	0.0	0.0	0.0	80.5	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
	8	0.0	0.0	0.0	0.0	0.0	0.0	63.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (Veh/hr)	Avg journey time (s)
6	1	2	579		59.08		579	59.08
8	1	3	122		97.12		122	97.12
16	3	1	117		69.33		117	69.33
17	3	4	20		20.38		20	20.38
18	1	1	0		0.00		0	0.00
19	2	2	0		0.00		0	0.00
20	3	3	0		0.00		0	0.00
22	4	3	23		134.13		23	134.13
25	4	2	1245		96.09		1245	96.09
26	2	1	747		83.15		747	83.15
31	2	3	104		32.40		104	32.40
32	6	5		50		80.50	50	80.50
99	7	8		50		63.58	50	63.58
100	8	7		50		63.58	50	63.58
101	5	6		50		80.50	50	80.50
137	4	1	370		67.00		370	67.00
140	2	4	785		34.20		785	34.20
141	3	2	171		98.42		171	98.42
142	1	4	545		98.92		545	98.92
143	4	4	39		135.93		39	135.93

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	M e of qu (V
A	1	(untitled)	3			308	5400	100	0.00	6	1653	2.13	0.02	0.00	0.00	
Ac	1	(untitled)	3			2116	Unrestricted	100	8.00	0	Unrestricted	1.80	0.00	0.00	0.00	
Ax	1	(untitled)				249	Unrestricted	100	2.00	0	Unrestricted	12.00	0.00	0.00	0.00	
B	1	(untitled)	4	3	A	1677 <	3600	64	0.00	93	7	54.72	42.72	100.44	62.10 +	36
Bc	1	(untitled)	4	3	B	1035 <	3600	44	0.00	83	20	48.67	46.31	16.66	6.26 +	27
Bx	1	(untitled)				1389	Unrestricted	100	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
C	1	(untitled)	1	1	A	1246 <	3600	47	0.00	87	16	47.08	40.78	95.92	40.75 +	27
Cc	1	(untitled)	1	1	B	1478	3600	61	0.00	79	26	29.37	27.60	8.77	4.33	25
Cx	1	(untitled)				1234	Unrestricted	130	9.00	0	Unrestricted	12.28	0.00	0.00	0.00	
D	1	(untitled)	2	2	A	1636	3600	62	0.00	72	39	20.40	14.59	33.92	15.42	20
Dc	1	(untitled)	2	2	B	729	3600	28	0.00	70	43	38.03	35.77	24.56	4.98	15
Dx	1	(untitled)				1995	Unrestricted	120	0.00	0	Unrestricted	12.00	0.00	0.00	0.00	
13	1		5			308	1800	100	0.00	17	484	6.25	0.21	0.00	0.02	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)		1	C	50	11000	67	1	12183	14.93	11.93	0.74	100	0
	2	(untitled)		1	C	50	11000	67	1	12183	16.93	11.93	0.74	100	0
2	1	(untitled)		3	C	50	11000	5	12	746	65.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
3	1	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0
	2	(untitled)		3	C	50	11000	5	12	746	63.58	60.58	1.74	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	912.06	102.91	8.86	58.68	13.87	1030.27	49.10	97.20	1176.56
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	1.40	4.00	0.35	3.70	0.00	52.49	0.00	0.00	52.49
TOTAL	913.46	106.91	8.54	62.38	13.87	1082.76	49.10	97.20	1229.05

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

UK and Ireland Office Locations