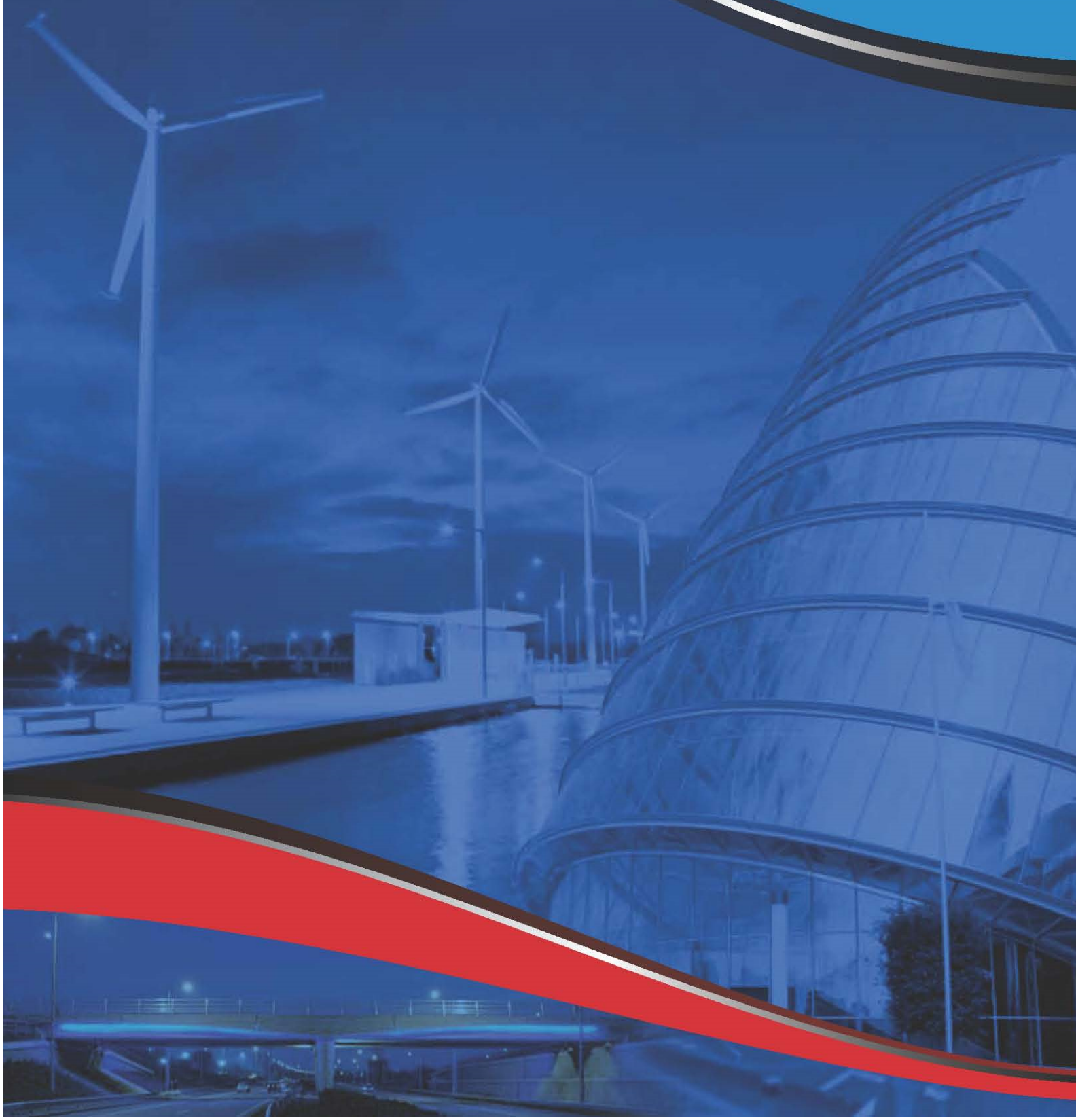
TRAFFIC IMPACT ASSESSMENT

FOSTERSTOWN NORTH SHD, SWORDS

PROJECT NO. M1297

13th April 2022

OCSC
O'CONNOR | SUTTON | CRONIN
Multidisciplinary
Consulting Engineers



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NOTICE

DOCUMENT CONTROL & HISTORY

OCSC Job No.:	Project Code	Originator	Zone Volume	Level	File Type	Role Type	Number	Status / Suitability Code	Revision
M1297	M1297	OCSC	XX	XX	RP	C	0001	S4	P08

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P08	S4	J.T	PR	PR	13.04.22
P07	S3	J.T	PR	PR	31.03.22
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P05	S3	J.T	PR	PR	15.03.22
P04	S3	J.T	PR	PR	08.03.22
P03	S3	J.T	SMG	PR	28.05.21
P02	S3	J.T	SMG	PR	03.04.20
P01	S3	J.T	SMG	PR	14.02.20

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1 INTRODUCTION

O'Connor Sutton Cronin & Associates (OCSC) have been commissioned to undertake this Traffic Impact Assessment Report with respect to the proposed SHD development on the lands at Fosterstown North, Dublin Road / R132, Swords, Co. Dublin. The exact site location can be seen in *Figure 1* below.

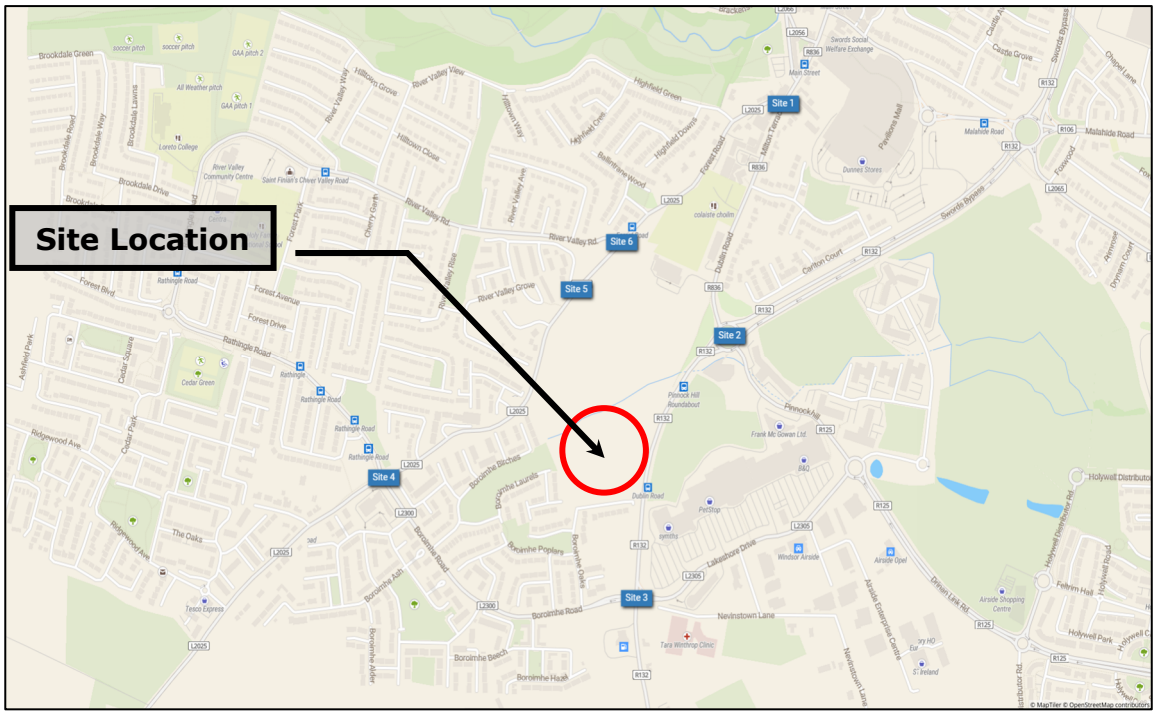


Figure 1: Site Location Map

The proposed development comprises a Strategic Housing Development of 645 no. residential units (comprising 208 no. 1 bedroom units, 410 no. 2 bedroom units, and 27 no. 3 bedroom units), in 10 no. apartment buildings, with heights ranging from 4 no. storeys to 10 no. storeys, including undercroft / basement levels (for 6 no. of the buildings). The proposals include 1 no. community facility in Block 1, 1 no. childcare facility in Block 3, and 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use) in Blocks 4 and 8. The proposal includes all associated and ancillary development. Please refer to the public notices for a detailed description of the proposed development. The aspects of key relevance to this report are discussed in preceding sections.

In addition, this assessment report includes the permitted development under ABP Ref. 308366-20 for 278 no. residential units, a childcare facility, a retail unit, a section of the Fosterstown Link Road and associated site works, on the adjoining lands to the north. Also, the potential future build out on the adjoining lands to the north and the improvements works (part of R132 Connectivity Project) on the R132 immediately North of the Pinnockhill Roundabout are included as part of this assessment to ensure a conservative and comprehensive assessment.

The purpose of this report is to provide a detailed and conservative assessment of the development proposals as follows:

- The potential traffic impact on the operation of the local road network;
- A rationale for the parking proposals for the site.

In carrying out the above, this assessment has given due consideration to the relevant guidelines including:

- *Traffic & Transport Assessment Guidelines (2014)* as published by the former National Roads Authority (NRA) now Transport Infrastructure Ireland (TII);
- *Guidelines for Traffic Impact Assessment (1997)* as published by the Chartered Institute of Highways & Transportation;
- *Fingal Development Plan 2017-2023*
- *Swords Masterplans Part C: Fosterstown (May 2019)*.

2 STUDY METHODOLOGY

In order to inform this assessment, Tracsis were contracted to carry out traffic surveys at the following locations:

- *Junction 1*: Dublin Road/Forest Road/Main Street;
- *Junction 2*: R132/R125/R132/R836;
- *Junction 3*: R132/L2305 Nevinstown Lane/L2300;
- *Junction 4*: Forest Road/L2300/Rathingle Road;
- *Junction 5*: Forest Road/Hawthorn Road;
- *Junction 6*: Forest Road/River Valley Road.

The exact locations of these junctions can be seen in *Figure 2.*

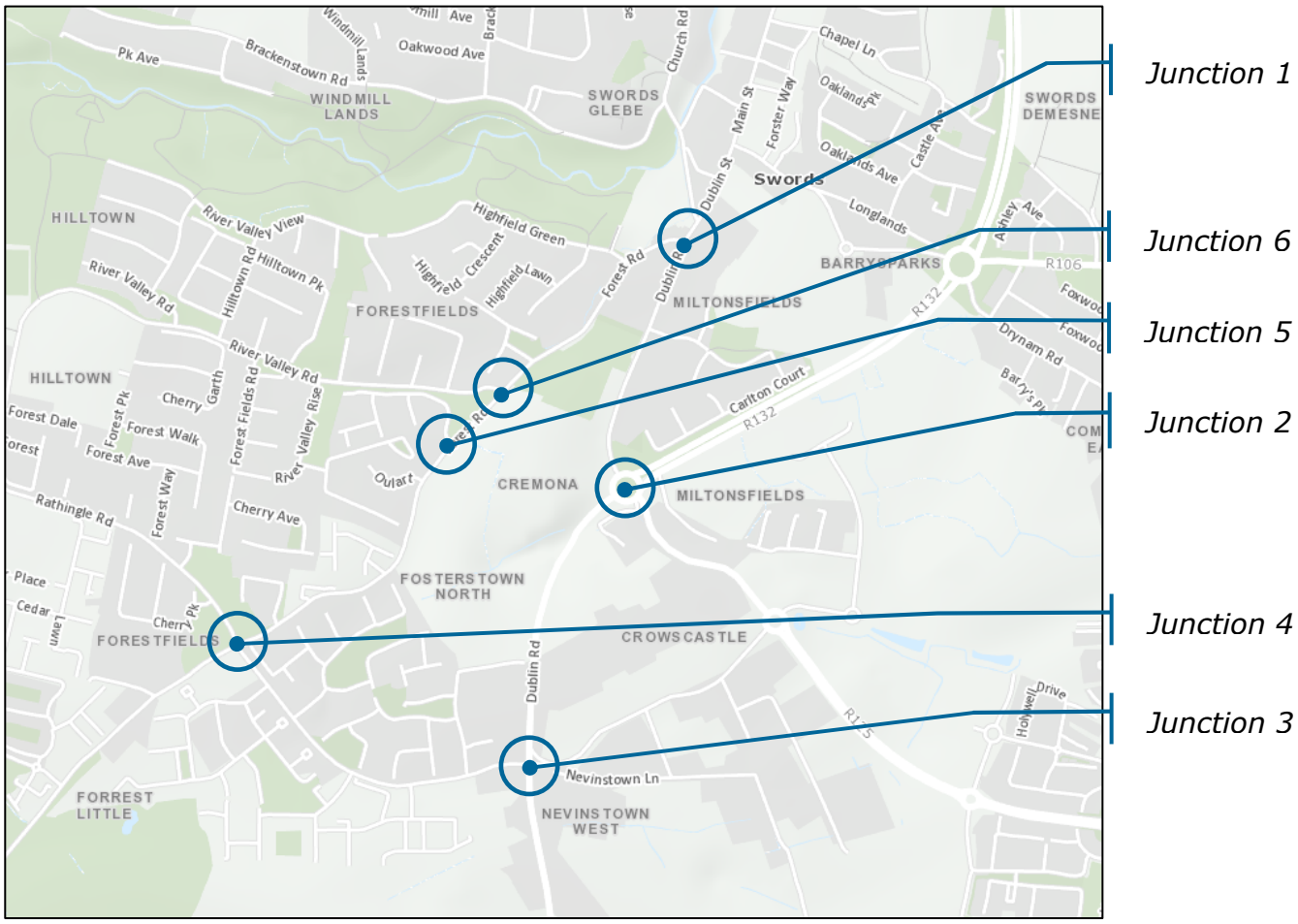


Figure 2: Traffic Count Locations

The surveys took the form of 15 minute interval junction turning counts and were carried out on Thursday 27th February 2020 between the hours of 07:00 - 19:00.

A seven-fold classification system was used as follows:

- Bicycle;
- Motorcycle;
- Car;
- Light Goods Vehicle;
- Heavy Goods Vehicle (Class OGV 1);
- Heavy Goods Vehicle (Class OGV 2);
- Bus (PSV).

In addition to the above, the following were also recorded:

- Pedestrian crossing counts at each arm of each junction over 15 minute intervals;
- Queue length surveys recording the maximum queue lengths observed on a per lane basis at each approach of each junction over 5 minute intervals.

A full copy of the results of all traffic surveys can be found in *Appendix A*, to the rear of this report.

The short term traffic counts were expanded to Annual Average Daily Traffic (AADT) using expansion factors[1] from TII. The base year flows were then adjusted to the predicted Year of Opening for the development (2024) and the Design Year (2039) using medium range NRA growth factors[2].

It is recognised that Section 4 of the Fosterstown Masterplan (2019) includes the Key Transport and Movement Objectives which require that the main vehicular access to the Masterplan lands will be via the new Fosterstown Link Road from the

[1] Unit 16.1 Expansion Factors for Short Period Traffic Counts, Project Appraisal Guidelines; TII, October 2016
[2] Unit 5.3 Link Based Growth Rates, Project Appraisal Guidelines; TII, January 2016

R132 to the Forest Road. Section 8 of the Fosterstown Masterplan also sets out the Key Phasing and Implementation Objectives including that the Fosterstown Link Road should form Phase 1 of development. It is also acknowledged that the Fosterstown Link Road is an objective of the Development Plan (Objective SWORDS 6). However, the access and the location of the Fosterstown Link Road, as outlined in the Fosterstown Masterplan, are located on the adjoining lands to the north, and not in lands in the ownership of the applicant. This TIA demonstrates that the proposed development, with a proposed temporary vehicular access to the R132, does not require the Fosterstown Link Road to facilitate the proposed development for any traffic or transportation related reasons. However, noting that the link road could come forward in the future, consideration was given as part of the TIA to the impact of the proposed Fosterstown Link Road with respect to existing traffic flows and the potential change in travel patterns locally due to the new road creating shorter travel routes.

The traffic generation potential of this SHD development was then assessed using the Trics[3] planning database. This database contains information on thousands of sites in Ireland and the U.K. and can be used to predict the traffic that will be generated by numerous types of development. Consideration has also been given to the adjacent zoned lands to the north of the development site which are expected to be developed in the near future, subject to a separate planning application. The associated trip generation potential has been assessed and allowed for accordingly.

The estimated additional traffic was assigned to the local road network and its impact on the operation of the local links and junctions was assessed using guidance from the NRA, CIHT, the *Design Manual for Roads and Bridges* (DMRB) and a number of task specific traffic software (TRANSYT 15 and Junction 9). The assessment considered the following scenarios:

[3] **T**rip **R**ate **I**nformation **C**omputer **S**ystem

- Do Nothing – no development taking place in the local area and only allowance for natural background traffic growth;
- Do Something – natural background traffic growth, the additional traffic estimated to be generated by the proposed development and phase 1 development of the zoned lanes to the north (278 no. units);
- Do Maximum – natural background traffic growth, the additional traffic estimated to be generated by the proposed development and the zoned lands to the north as well as the changes to travel patterns and infrastructure as a result of the Fosterstown Link Road.

3 THE RECEIVING ENVIRONMENT

The receiving environment is urban in nature. The main transportation artery in the study area is the R132. The proposed development will access the site via a new junction entrance located on the R132.

Outside of the study area, development generated traffic will dissipate and so is expected to have a negligible impact on the operation of the wider network. While there is expected to be substantial variation in the type of traffic travelling on the links locally, during the peak travel hours they would be expected to mainly carry commuter traffic based on the nature of the local area.

As noted earlier, base traffic levels have been surveyed on the local network in 2020. By combining these base flows with the traffic generation estimates for the proposed development, the following peaks were identified:

- A.M. Peak Hour: 08:00 – 09:00;
- P.M. Peak Hour: 17:15 – 18:15.

The recorded flows during the above peak hours and across the course of an average day are shown in the following:

–*Diagram 1: 2020 A.M. Peak Hour Base Flows (*08:00 – 09:00*);*
–*Diagram 2: 2020 A.M. Peak Hour Base Flows (*17:15 – 18:15*);*
–*Diagram 3: 2020 Annual Average Daily Traffic Base Flows.*

The aforementioned diagrams and all others referenced in this text can be found in *Appendix B*, to the rear of this report. Any apparent discrepancy in flows between sites may be attributed to vehicles accessing developments and minor roads between surveyed junctions.

TA 79/99 "Traffic Capacity of Urban Roads" from the DMRB provides information on the capacity of urban roads based on classification and width. *Table 1* following

shows the capacities of various road types based on this manual and using a 60:40 split in flow.

2 Way Single Carriageway – Busiest Direction of Flow (60/40 split)										
		Total Number of lanes								
Carriageway Width (m)		*2*				*2–3*	*3*	*3–4*	*4*	*4+*
		6.10	*6.75*	*7.30*	*9.0*	*10.0*		*12.3*	*13.5*	*18.0*
Road Type	UM	*Not Applicable*								
	UAP1	1020	1320	1590	1860	2010	2550	2800	3050	3300
	UAP2	1020	1260	1470	1550	1650	1700	1900	2100	2700
	UAP3	900	1110	1300	1530	1620	*	*	*	*
	UAP4	750	900	1140	1320	1410	*	*	*	*

Table 1: Urban Road Capacities

The local links have been classified based on the associated definitions in the DMRB. Using the previous table, link capacities have been calculated and current Ratio of Flow to Capacity (RFC) values have been assessed for the key links bordering the site. These are shown for the base year peak hours in *Table 2.*

It should be noted that given the variation in width across the links in question, an average figure for each has been used which is rounded down to the nearest value shown in the above table, thus ensuring a conservative assessment of link capacity. Where bus lanes are present, a reduced width has been allowed for to account for their reduced usage, thereby ensuring a conservative assessment.

Link	Width (m)	Link Capacity (veh/hr)	A.M. Peak (veh/hr)	RFC (%)	P.M. Peak (veh/hr)	RFC (%)
R132	12.3	1,900	1,105	58	1,125	59
L2300	7.5	1,300	857	66	656	50
Forest Road	6.75	900	449	50	359	40

Table 2: Base Year Link RFC Values for Local Network

As can be seen, all major links are shown to be operating well within capacity in the base case.

In order to accurately assess the impact of the proposed development in the future, the base traffic flows for the local network have been expanded to the Year of Opening and the Design Year using the medium range TII growth factors detailed in *Table 3* following.

Year	Growth Rates	
	Light Vehicles	*Heavy vehicles*
2024	6.64%	9.11%
2039	22.93%	51.03%

Table 3: Background Traffic Growth Factors

In order to fully assess the future year traffic flow. The future year traffic flows without development can be seen in the following:

- *Diagram 4: 2024 A.M. Peak Hour Flows – Do Nothing;*
- *Diagram 5: 2024 P.M. Peak Hour Flows – Do Nothing;*
- *Diagram 6: 2024 AADT – Do Nothing;*

- *Diagram 7: 2039 A.M. Peak Hour Flows – Do Nothing;*
- *Diagram 8: 2039 P.M. Peak Hour Flows – Do Nothing;*
- *Diagram 9: 2039 AADT – Do Nothing.*

In the Do Maximum Scenario, the impact of the proposed Fosterstown Link Road was analysed by diverting traffic to its most likely destination in the network analysed. If the introduction of the Fosterstown Link Road made this journey faster or shorter it was assumed the vehicle would instead use the new Fosterstown Link Road.

An example of the above is the number of vehicles exiting River valley Road and turning left on to the Forest Road is known from the traffic counts. The percentage of the vehicle that then turn right on to the Dublin Road at the junction of the Forest Road and Main Street (percentage that turn right as a percentage of the total vehicles exiting the Forest Road on to Main Street) is also known. It can then be assumed that this same percentage of vehicles that turn right onto the Dublin Road at the junction of the Forest Road and Main Street will instead divert on to the new Forest Road as the shortest route to their destination i.e. instead of turning left onto the Forest Road will turn right to access the new Fosterstown Link Road. This diverted traffic was then assigned to the study area based on existing traffic flows in the area combined with an assessment of the local network layout.

The reassigned background traffic flows mentioned above are shown in the following diagrams:

- *Diagram 10: 2024 A.M. Peak Hour – Reassigned Background Traffic with Link Road;*
- *Diagram 11: 2024 P.M. Peak Hour – Reassigned Background Traffic with Link Road;*
- *Diagram 12: 2024 AADT – Reassigned Background Traffic with Link Road.*

- *Diagram 13: 2039 A.M. Peak Hour – Reassigned Background Traffic with Link Road;*
- *Diagram 14: 2039 P.M. Peak Hour – Reassigned Background Traffic with Link Road;*
- *Diagram 15: 2039 AADT – Reassigned Background Traffic with Link Road.*

4 CHARACTERISTICS OF THE DEVELOPMENT

EXISTING SITE OVERVIEW

The development site is currently a green field site as set out below.

Figure 3: Existing Site Layout & Access

PROPOSED DEVELOPMENT OVERVIEW

The proposed development comprises a Strategic Housing Development of 645 no. residential units (comprising 208 no. 1 bedroom units, 410 no. 2 bedroom units, and 27 no. 3 bedroom units), in 10 no. apartment buildings, with heights ranging from 4 no. storeys to 10 no. storeys, including undercroft / basement levels (for 6 no. of the buildings). The proposals include 1 no. community facility in Block 1, 1 no. childcare facility in Block 3, and 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use) in Blocks 4 and 8. The proposal includes all associated and ancillary development. Please refer to the public notices

for a detailed description of the proposed development. The aspects of key relevance to this report are as follows:

The development includes a total of 363 no. car parking spaces (63 at surface level and 300 at undercroft / basement level). 1,519 no. bicycle parking spaces are provided at surface level, undercroft / basement level, and at ground floor level within the blocks. Bin stores and plant rooms are located at ground floor level of the blocks and at undercroft / basement level. The proposal includes private amenity space in the form of balconies / terraces for all apartments. The proposal includes hard and soft landscaping, lighting, boundary treatments, the provision of public and communal open space including 2 no. playing pitches, children's play areas, and an ancillary play area for the childcare facility.

The proposed development includes road upgrades, alterations and improvements to the Dublin Road / R132, including construction of a new temporary vehicular access, with provision of a new left in, left out junction to the Dublin Road / R132, and construction of a new signalised pedestrian crossing point, and associated works to facilitate same. The proposed temporary vehicular access will be closed upon the provision of permanent vehicular access as part of development on the lands to the north of the Gaybrook Stream. The proposal includes internal roads, cycle paths, footpaths, vehicular access to the undercroft / basement car park, with proposed infrastructure provided up to the application site boundary to facilitate potential future connections to adjoining lands.

The proposed layout is shown in *Figure 4* overleaf.

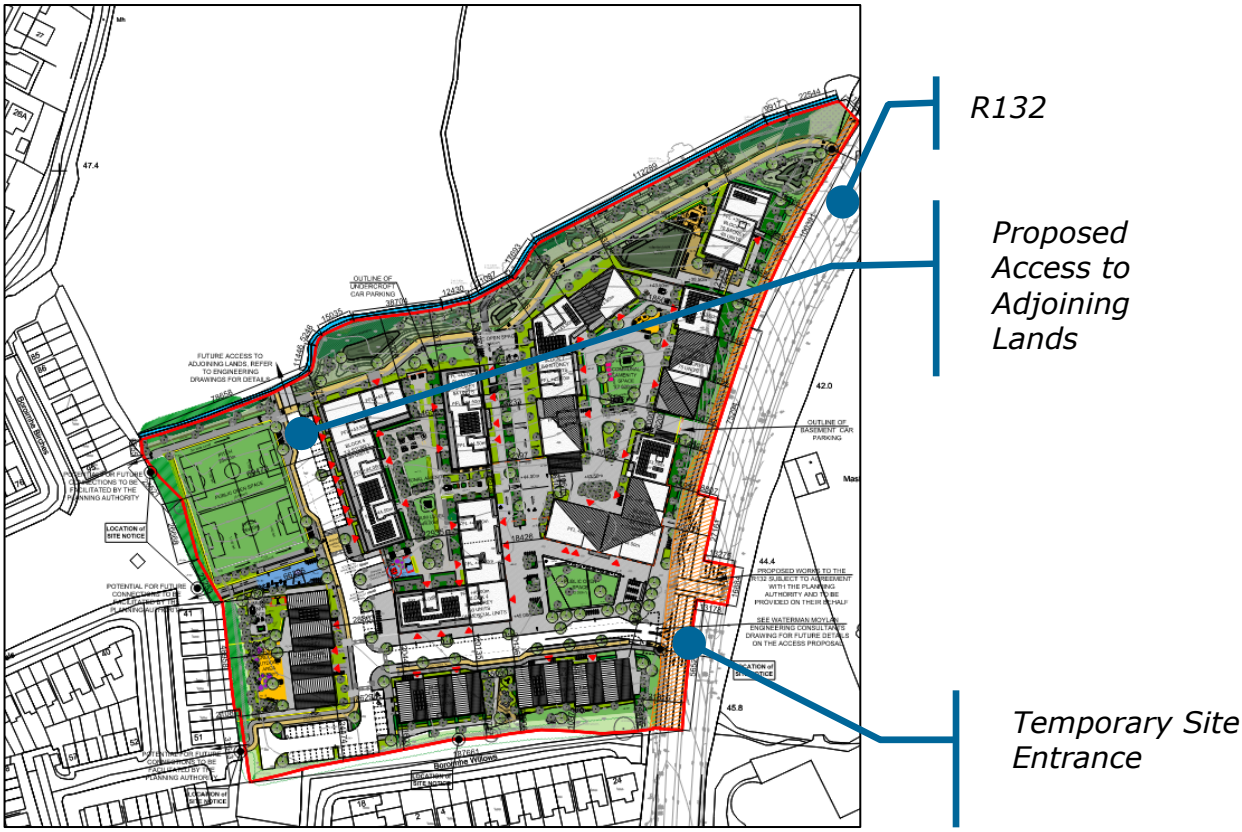


Figure 4: Site Layout

As can be seen in the above figure, the proposed temporary site entrance is proposed to be a left in / left out junction, connecting to the existing R132 on the eastern boundary. The temporary entrance includes the provision of footpath and cycle lane facilities, as shown in figure 5 following.

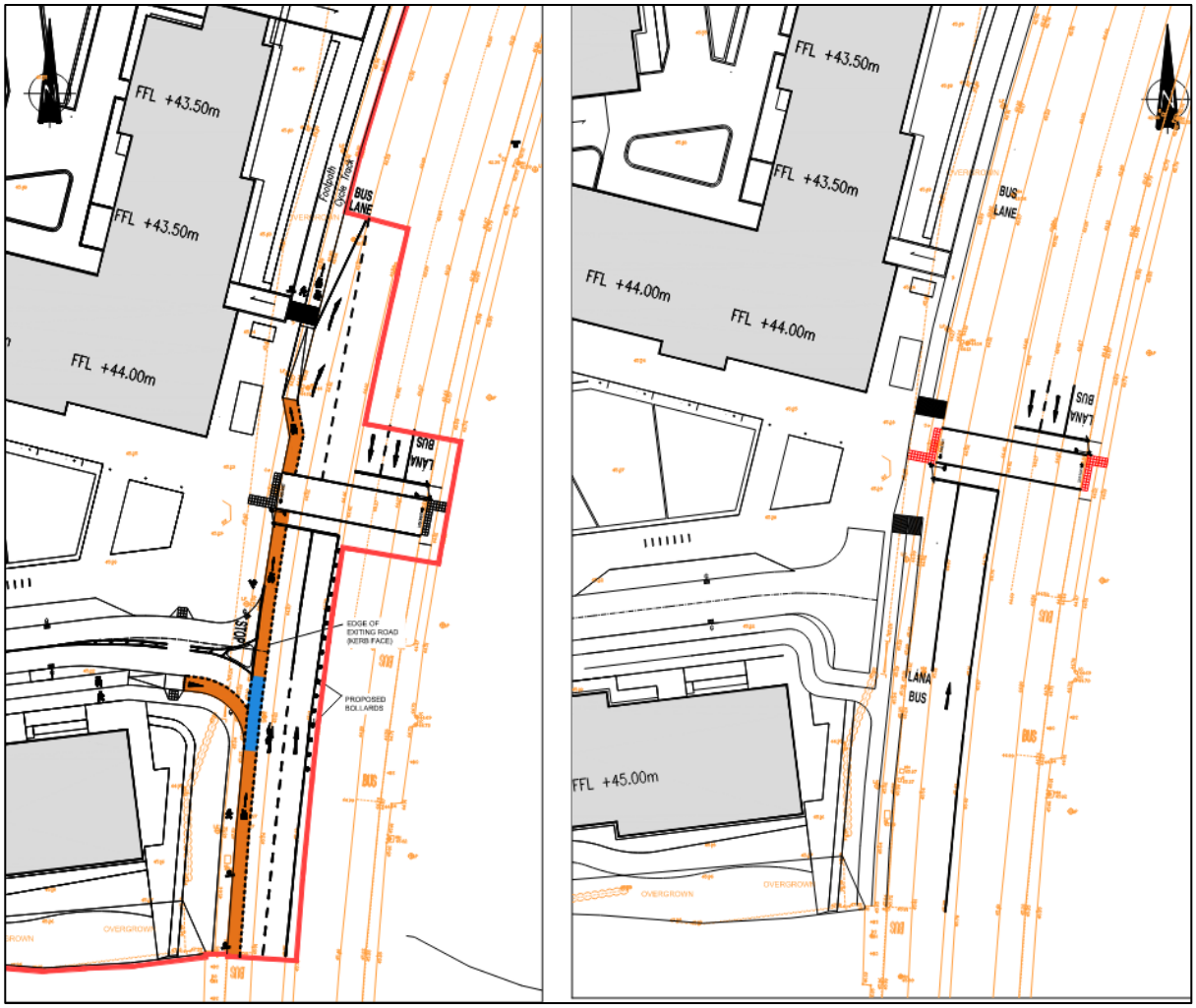


Figure 5: Proposed Temporary Access Layout / Future Residential Cul De Sac

As can be seen Figure 5, the proposed temporary entrance will connect to Dublin Road / R132 with the provision of dedicated pedestrian crossing facilities and will be closed upon the provision of permanent vehicular access as part of development on the lands to the north of the Gaybrook Stream.

COMMITTED DEVELOPMENT

In addition to allowing for natural background traffic growth, consideration has also been given to the lands directly north of the proposed development site as outlined following, which granted the permission under *ABP Ref: 308366-20* .

Figure 6: 3rd Party Lands Allowed for in Assessment

As mentioned earlier, the permitted development is understood to consist of approximately 278 no. apartment units and will include the Phase 1 of the Fosterstown Link Road, as highlighted in the indicative layout overleaf. Please note the Fosterstown Link Road will not be fully constructed under this committed development.

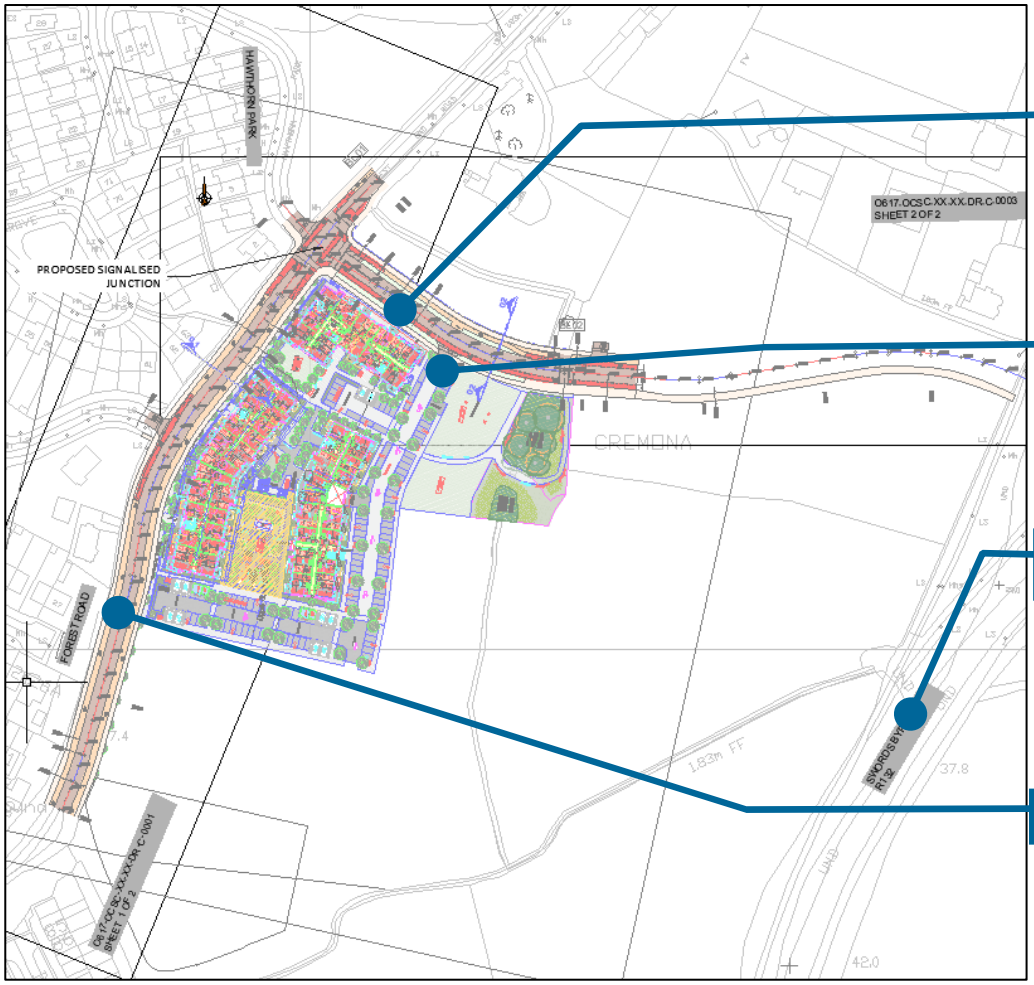


Figure 7: Committed Development Site Layout

Under the third party development application, the Fosterstown Link Road will connect the existing R132/R125/R836 junction to the east and Forest Road/Hawthorn Park junction to the west. Both existing junctions are expected to be upgraded to signalised junctions to cater for the addition of the Fosterstown Link Road. The upgrading of two junctions mentioned previously will also improve cycle and pedestrian facilities at the junction.

The expected revised configuration for the Pinnockhill Junction is expected to be as shown in Figure 8 below.

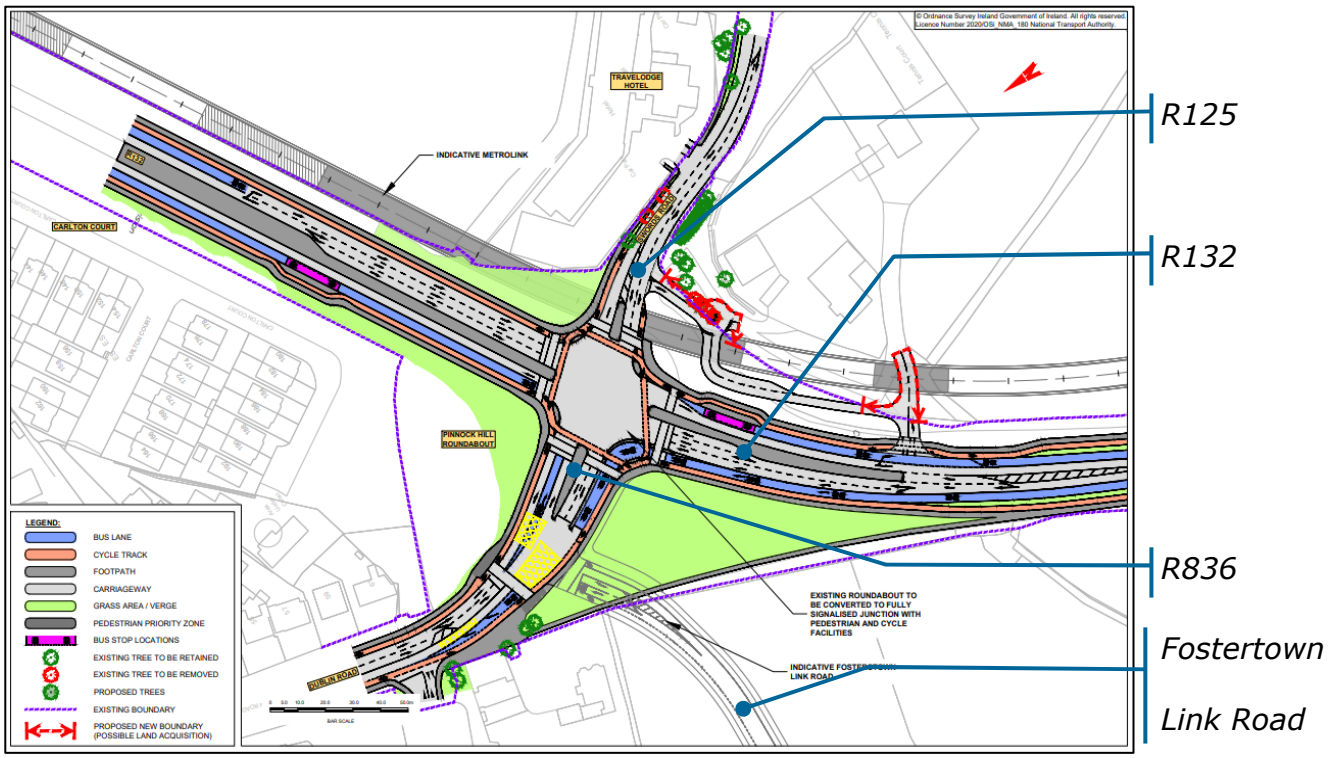


Figure 8: Proposed Pinnockhill Signalised Junction Layout

As can be seen, the revised configuration on the R132 will see the provision of a 4 arm signalised junction with dedicated pedestrian crossing facilities on all arms. The existing R132, R836 and R125 arms to this junction are to be maintained with multi-lane approaches for each while the western arm will be formed by the proposed Link Road. Dedicated bus priority lanes are to be provided on the R132 and R836. Dedicated cycle lanes will be provided on all arms of this junction.

Fingal County Council in conjunction with the National Transport Authority are bringing forward plans to upgrade the Pinnock Hill Roundabout on the R132 to a signalised junction as part of the future Bus Connects and Metro Link projects. As part of R132 Connectivity project, FCC/NTA propose to carry out improvement works between the north of Pinnockhill Roundabout and north of Estuary Roundabout, to facilitate the new protected cycle and pedestrian facilities and reduction of the traffic speed limit. However, it is considered that the improvement works on the R132 immediately North of the Pinnockhill Roundabout will have a

minor or negligible impact to the local traffic network once it is in operation based on the improvement works proposals on the geometry of R132 junction.

It is currently proposed as part of the FCC/NTA proposal that the future phases of the Fosterstown Link Road will tie into the R836 just north of the new Pinnock Hill signalised junction. This new connection will be signalised and provide for additional pedestrian crossing facilities.

The Forest Road/Hawthorn Park junction is expected to be upgraded to a signalised crossroads with single lane approaches on each arm but only when the Fosterstown Link road is introduced.

The extent of any potential impact of the third party development lands and the Fosterstown Link Road on the local road network are assessed in the Do-Maximum Scenario, described later in this report.

TRIP GENERATION

The apartments at the proposed development are expected to be the primary trip generator and form the basis of the development trip generation estimates. The ancillary crèche and commercial elements are not expected to generate a significant amount of trips for the local traffic network as these ancillary elements are expected to serve the residents at the proposed development. As a result, they have not been included in this assessment from a trip generation perspective.

The traffic generation potential of the proposed development has been estimated using the Trics software modelling database which is an industry standard tool. When developing traffic generation estimates for any development, a number of surveys are selected from the database based on a range of factors including development type, size, location, public transport etc. The results are then used to establish trip rates for the development in question which are ultimately used to derive estimates for traffic generation. The Trics output files relative to this assessment can be found in *Appendix C* of this report.

The trip generation estimates have been produced for both the proposed development as part of this application and the third party lands to the north site as shown in Table 4, 5 and 6 respectively.

Time Range	**Apartments**	
	Arrivals	*Departures*
00:00-01:00	0	0
01:00-02:00	0	0
02:00-03:00	0	0
03:00-04:00	0	0
04:00-05:00	0	0
05:00-06:00	0	0
06:00-07:00	0	0
07:00-08:00	28	115
08:00-09:00	25	114
09:00-10:00	45	63
10:00-11:00	35	38
11:00-12:00	32	28
12:00-13:00	38	42
13:00-14:00	41	36
14:00-15:00	28	37
15:00-16:00	61	35
16:00-17:00	81	39
17:00-18:00	114	41
18:00-19:00	88	39
19:00-20:00	0	0
20:00-21:00	0	0
21:00-22:00	0	0
22:00-23:00	0	0
23:00-24:00	0	0
Daily Trips:	615	626

Table 4: Proposed Development Estimated Trip Generation

Based on the above, the proposed development is expected to generate approximately 1,241 additional trips per day. Of these, approximately 25 arrivals and 114 departures are expected during the A.M. peak hour (08:00-09:00) while approximately 107 arrivals and 40 departures are expected in the P.M. peak hour (17:15-18:15).

Time Range	*Arrivals*	*Departures*
00:00-01:00	0	0
01:00-02:00	0	0
02:00-03:00	0	0
03:00-04:00	0	0
04:00-05:00	0	0
05:00-06:00	0	0
06:00-07:00	0	0
07:00-08:00	13	54
08:00-09:00	12	53
09:00-10:00	21	29
10:00-11:00	17	18
11:00-12:00	15	13
12:00-13:00	18	20
13:00-14:00	19	17
14:00-15:00	13	17
15:00-16:00	28	17
16:00-17:00	38	18
17:00-18:00	53	19
18:00-19:00	41	18
19:00-20:00	0	0
20:00-21:00	0	0
21:00-22:00	0	0
22:00-23:00	0	0
23:00-24:00	0	0
Daily Trips:	286	291

Table 5: Third Party Phase 1 Development Estimated Trip Generation

Based on the above, the third party phase 1 development is expected to generate approximately 578 additional trips per day. Of these, approximately 12 arrivals and 53 departures are expected during the A.M. peak hour (08:00-09:00) while approximately 50 arrivals and 19 departures are expected in the P.M. peak hour (17:15-18:15).

Time Range	*Arrivals*	*Departures*
00:00-01:00	0	0
01:00-02:00	0	0
02:00-03:00	0	0
03:00-04:00	0	0
04:00-05:00	0	0
05:00-06:00	0	0
06:00-07:00	0	0
07:00-08:00	44	179
08:00-09:00	39	177
09:00-10:00	70	97
10:00-11:00	55	59
11:00-12:00	49	43
12:00-13:00	59	65
13:00-14:00	63	56
14:00-15:00	45	57
15:00-16:00	95	56
16:00-17:00	126	61
17:00-18:00	176	63
18:00-19:00	136	61
19:00-20:00	0	0
20:00-21:00	0	0
21:00-22:00	0	0
22:00-23:00	0	0
23:00-24:00	0	0
Daily Trips:	957	975

Table 6: Third Party Full Development Estimated Trip Generation

Based on the above, the full third party development is expected to generate approximately 1,932 additional trips per day. Of these, approximately 39 arrivals and 177 departures are expected during the A.M. peak hour (08:00-09:00) while approximately 166 arrivals and 63 departures are expected in the P.M. peak hour (17:15-18:15).

The additional traffic outlined in *Table 4, Table 5 and Table 6* was assigned to the study area based on existing traffic flows in the area combined with an assessment of the local network layout. In particular, this process gave due consideration to the main commuting routes in the areas based on realistic travel routes to key roads infrastructure and employment areas. Thus, traffic was assigned based on the existing volumes travelling via the R132 (Dublin Road), Forest Road, L2300 and the R836 (Main Street) during the respective times periods assessed.

The assigned flows mentioned above are shown in the following diagrams:

- *Diagram 16: A.M. Peak Hour Trip Generation & Assignment – Do Something;*
- *Diagram 17: P.M. Peak Hour Trip Generation & Assignment – Do Something;*
- *Diagram 18: AADT Trip Generation & Assignment – Do Something.*

- *Diagram 19: A.M. Peak Hour Trip Generation & Assignment Masterplan – Do Maximum;*
- *Diagram 20: P.M. Peak Hour Trip Generation & Assignment Masterplan – Do Maximum;*
- *Diagram 21: AADT Trip Generation & Assignment Masterplan – Do Maximum.*

SITE ACCESSIBILITY

The site is located in close proximity to a number of public transport services including both rail and bus as discussed following.

Bus

There are 7 no. Dublin Bus routes and 1 no. Go Ahead route serving stops on the R132 and on Forest Road, directly adjacent the development site with the nearest stops located an approximate 100m (1 minute) walking distance of the development site.

There are also private operators that provide bus routes between Swords and Dublin City Centre, specifically the Swords Express which offers a peak hour

service with frequencies of 5-15 minutes. Routes 500, 501, 502, 503 & 505 all serve stops on Airside Road, approximately 400m (5 minutes) walking distance from the proposed development site.

The Swords QBC is routed along the R132, adjacent the development site.

Further improvements to the Dublin Bus network are proposed as part of Bus Connects. Relative to the development site, the most relevant aspect of this is the proposed A4 route that runs from Swords to Dundrum that will run adjacent to the development site on the R132 and include stopes in Santry, Drumcondra, City Centre, O'Connell Street, Georges Street, Rathmines, Rathgar and Terenure. Additional routes that will be within walking distance of the development site are set out following in Table 7.

Route	From	To	Frequency
A4	Swords	Dundrum	10-15 mins
L89	Airside	Finglas	60 mins
L81	Sutton	Airport	20 mins
L83	Airport	Portrane	30 mins
L85	Airport	Balbriggan	30 mins
X79	Glen Ellan Road	UCD	Peak Only

Table 7: Future Bus Connects Routes within Walking Distance of the Proposed Development

The additional trips proposed as part of the BusConnects plan can be seen in Figure 9 following, with the development site indicatively circled in red.

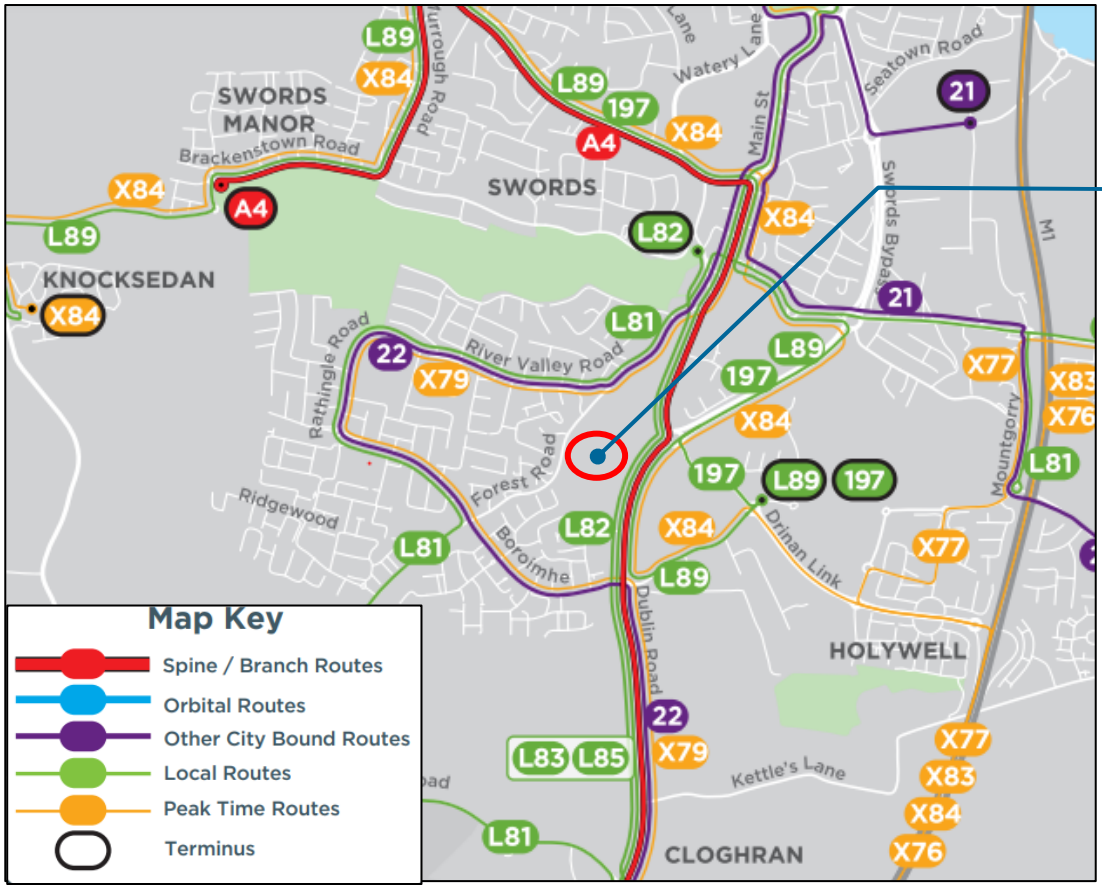


Figure 9: Proposed BusConnects Services

Rail

The site is located approximately 5.2km drive (c. 9 minutes) from Malahide Rail Station which includes both on-site car parking (77 no. spaces) and cycle facilities (70 no. sheltered spaces and 13 rentable bike lockers) making it a viable option for commuters. This station provides access to the Dublin Connolly / Drogheda / Dundalk services as well as the DART. This forms part of the wider rail network throughout the Greater Dublin Area and links the site directly to Dublin City Centre as set out following.

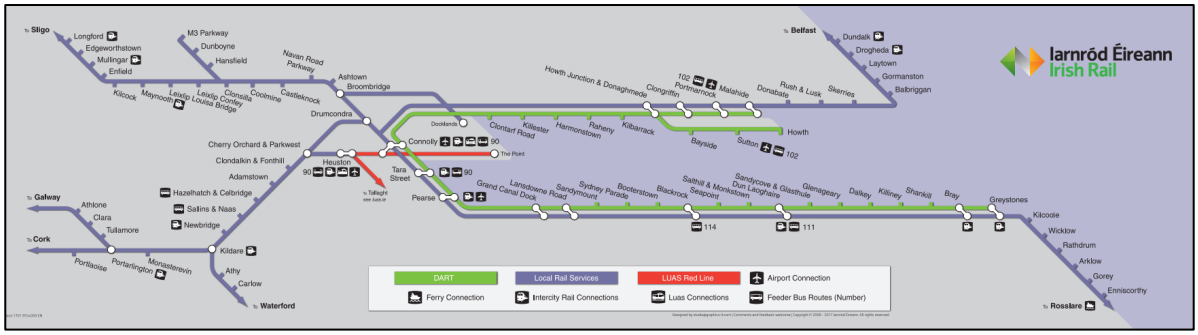


Figure 10: Irish Rail Network Map

Future improvements to rail infrastructure locally include the introduction of the MetroLink that currently proposes a station directly opposite the proposed development site. The route of the MetroLink as it indicatively relates to the proposed development site can be seen in the below Figure 11.

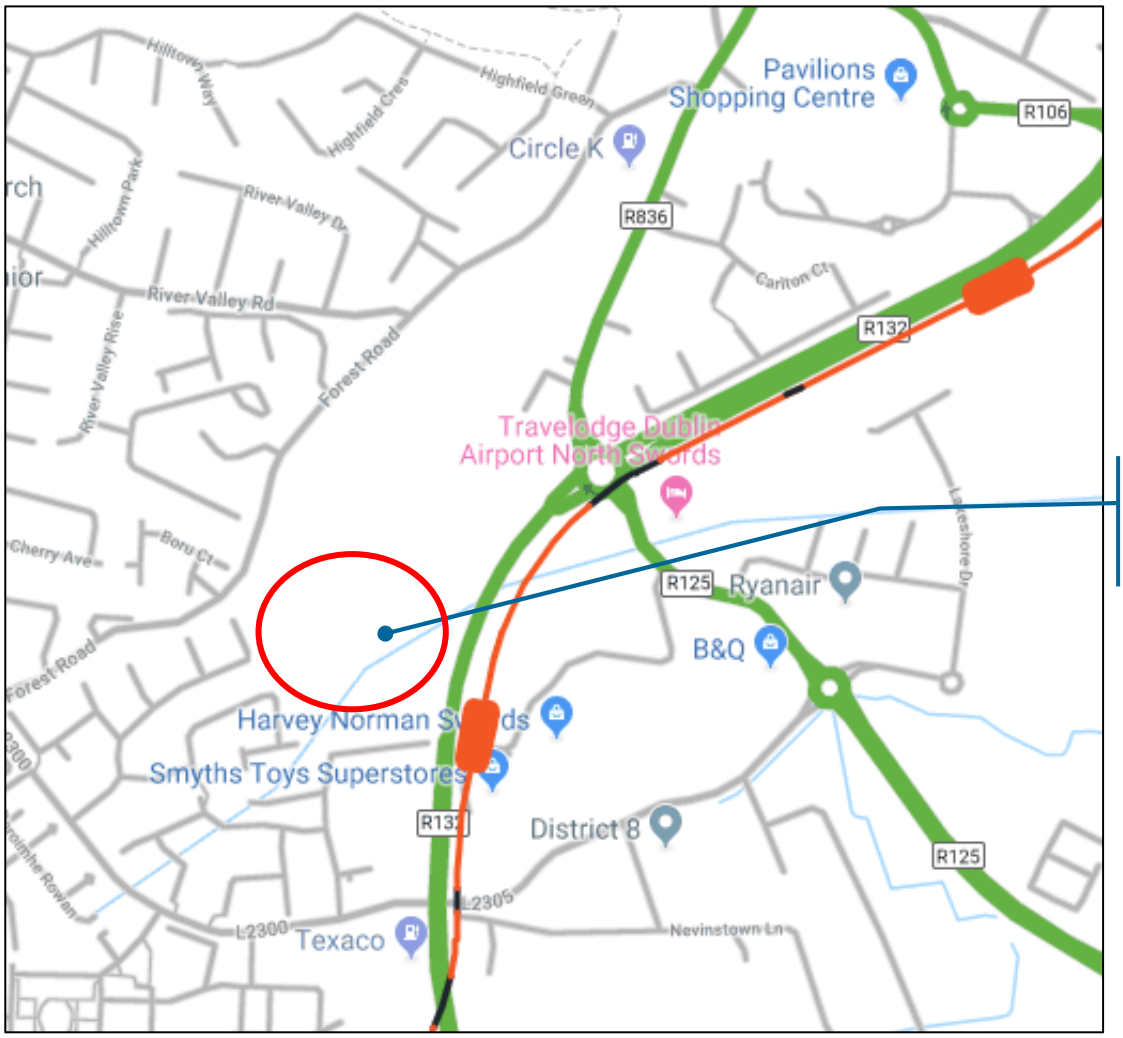
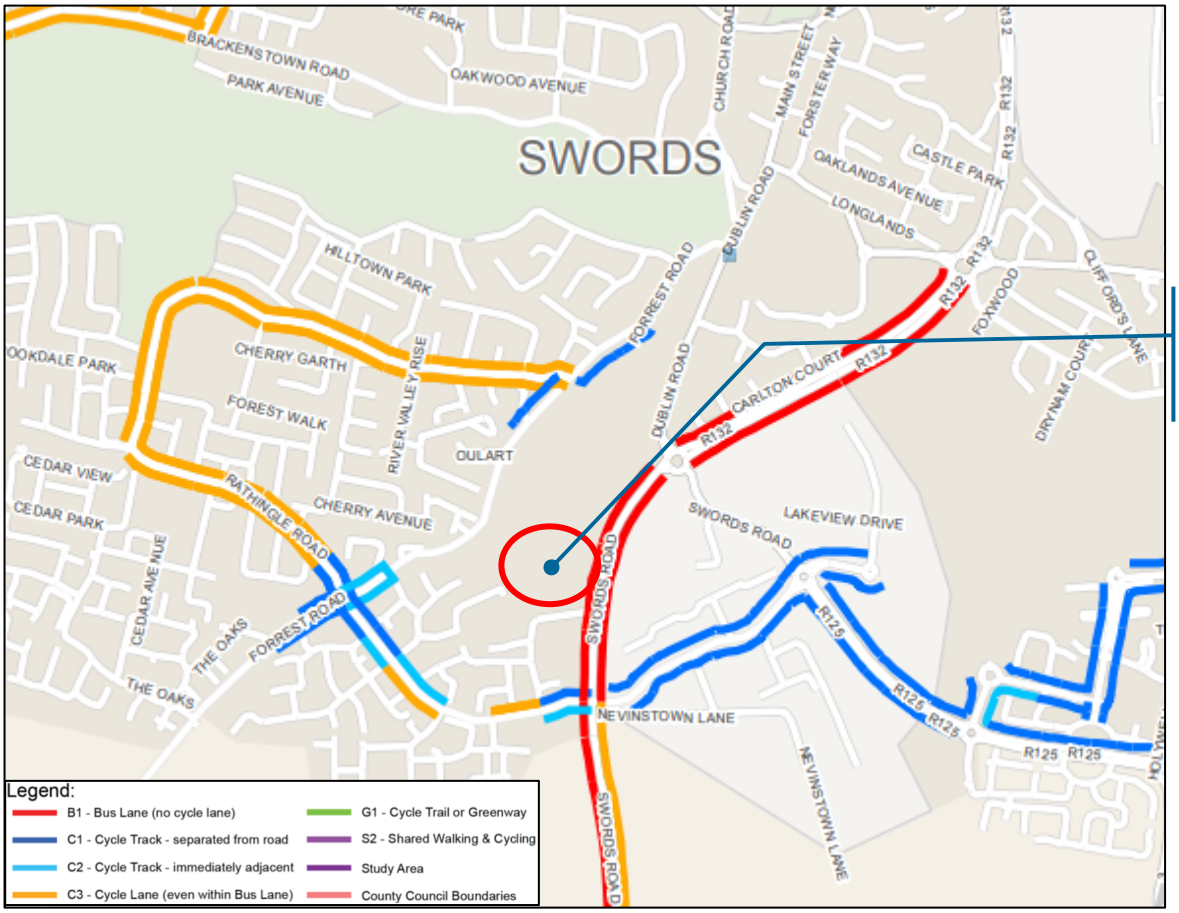


Figure 11: Section of MetroLink Route

This new MetroLink station within a short walking distance of the proposed development site will enable travel from Swords to the City Centre in less than 25 minutes. Key stops along the this line will include Dublin Airport, Ballymun, the Mater Hospital, the Rotunda Hospital, Dublin City University and Trinity College Dublin. As outlined earlier, a signalised pedestrian crossings will be included as part of the development proposals. Hence, it is expected that the future residents can utilise this crossing to the new Metrolink Station.

Cycle

The local cycle facilities are shown in *Figure 12* following, with the development site indicatively circled in red for context.



Site Location

Figure 12: Existing Local Cycle Infrastructure

As can be seen there are a number of existing cycle facilities available at present in the local area that will result in a positive modal share for cycling from the proposed development.

The proposed future network under this plan is shown following with the development site indicatively circled in red.

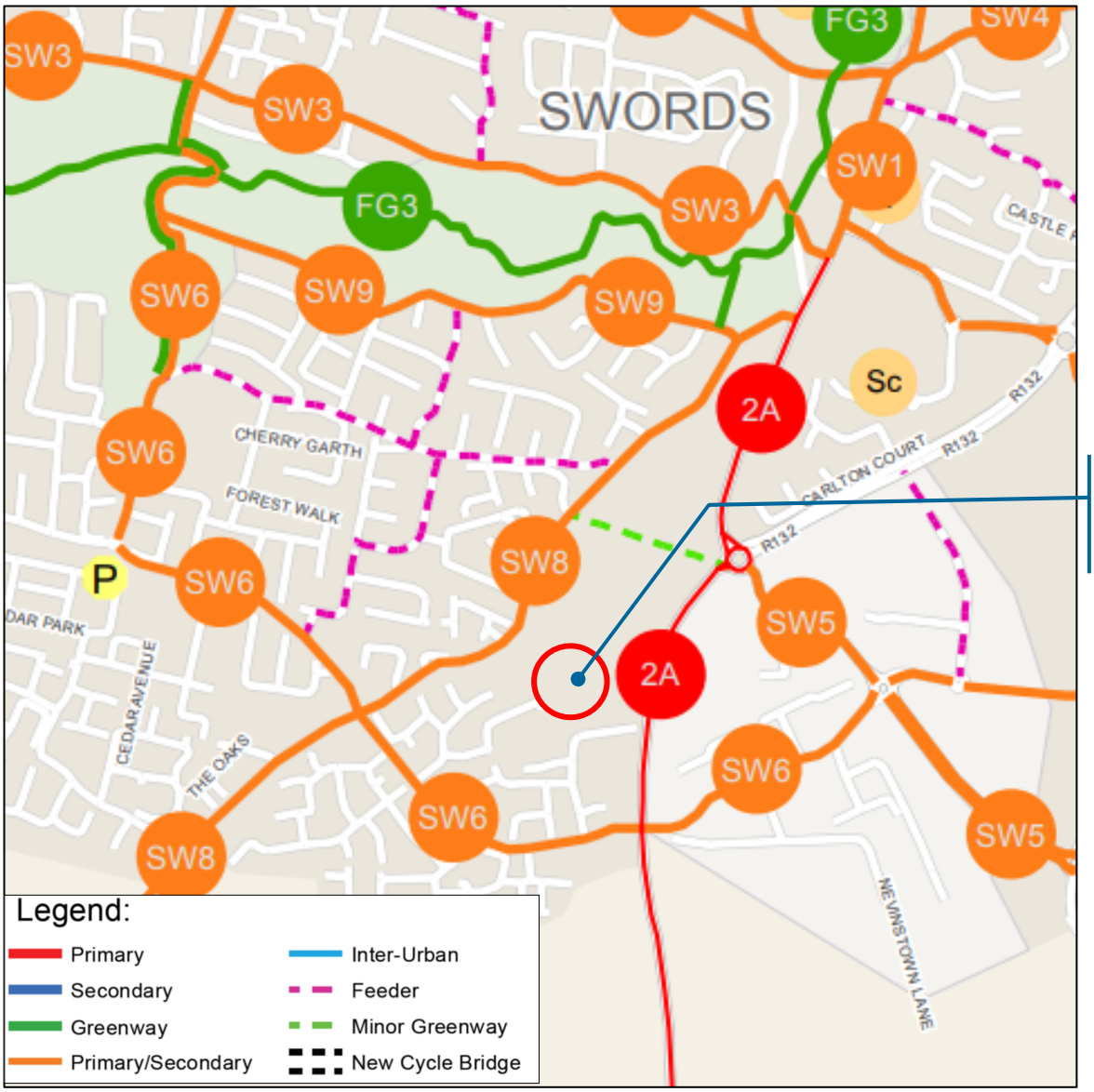


Figure 13: Proposed Future Cycle Infrastructure

As can be seen in the above image there are a number of primary and secondary routes proposed in close proximity to the proposed development site.

Taking the above into consideration, the site is accessible by a wide variety of transportation options with significant improvements proposed in the near future which will facilitate a modal shift away from private car travel.

OPERATIONAL IMPACT ON FUTURE PUBLIC INFRASTRUCTURE

Pedestrian Infrastructure

As can be seen in the figure below, there are no existing crossing facilities to enable the existing pedestrian cross over the Dublin Road / R132. It may arise pedestrian safety when crossing the road in future.

Figure 14: Dublin Road / R132 Without Crossing Facilities

As shown in Figure 5 earlier, a provision of signalised pedestrian crossing facilities will be included as part of the development proposals. Due to the Fosterstown Metro Station will be proposed on the opposite of the development site, it is expected that it will significantly increase the level of local pedestrian activities along the R132 in future. Hence, the proposed signalised crossing facilities on the Dublin Road / R132 can facilitate the future additional pedestrian to cross the road in a safe and convenience environment. In terms of pedestrian safety, it is considered that these additional facilities will not have any negative impact on the local traffic network.

Cycle Infrastructure

According to Bus Connects Proposals, the dedicated cycle lane will be proposed to provide on the each side of R132 as part of improvement works on R132, outlined in the figure below.

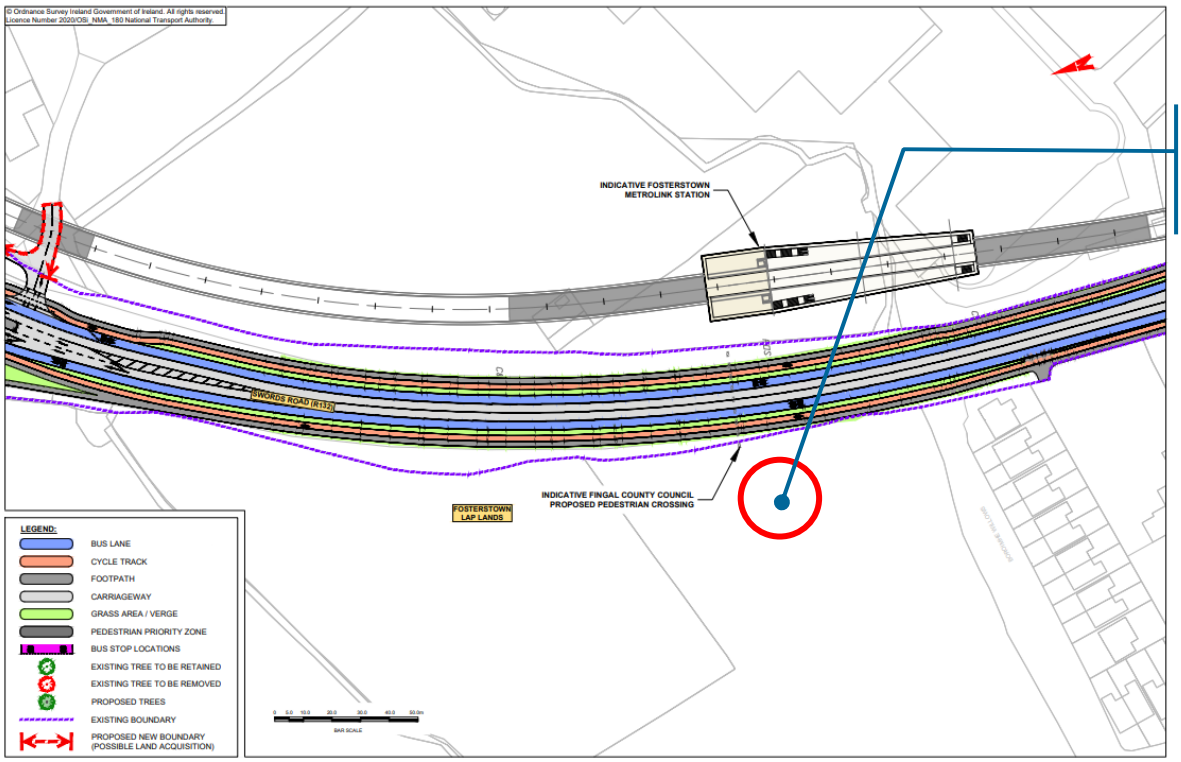


Figure 15: Extract From Bus Connects Proposals

As described in the introduction section previously, it is proposed to provide a dedicated cycle lane in the development site, which will connect to the dedicated cycle lane on the R132 as part of the new primary cycle Route 2A. It is noted that the proposed cycle lane in the development site still connects with the new cycle lane on R132 when the temporary is closed. Hence, it is expected that these additional cycle facilities enable the future cyclists can travel safely further afield and improve the local cycle network connectivity.

Vehicular Movement

In terms of vehicular movement in the vicinity of the R132, the proposed temporary entrance has been assessed in order to understand the true impact of

the entrance access on the local road network. The analysis results indicate the temporary entrance is able to facilitate the additional traffic generated by the proposed development with extremely low queue length on all arms during both peak hour. In addition, the temporary entrance is proposed to operate as left in / left out junction, which means the vehicular movement from the temporary site access will not be allowed to do the right turning movement to R132. The safety of vehicular movement from the R132 can be expected to be significantly improved.

Hence, it is considered that the additional traffic movements generated by the proposed development will have no major impact in the vicinity of the R132 once the development site is in operation. The detailed analysis of the temporary entrance are covered in later section of this report.

Bus Infrastructure

As outlined previously, the temporary entrance access is proposed to operate as left in / left out junction on R132, shown in Figure 5. In order to facilitate the proposed temporary entrance access, it requires a short break in the bus lane to allow the vehicles to enter / exit the development. The detailed analysis results indicate the proposed temporary entrance is able to operate with a low estimated queue length on all arms during both peak hours, despite the traffic level is increased.

As part of Bus Connects proposals, the proposed A4 route (high-frequency service route) that runs from Swords to Dundrum that will run adjacent to the development site on the R132 with every 5 minutes and include stopes in Santry, Drumcondra, City Centre, O'Connell Street, Georges Street, Rathmines, Rathgar and Terenure. These additional infrastructure facilities will promote sustainable modes of transport over private vehicles, this will ultimately increase modal share of public transport and potentially subsequently then help to remove private vehicles from the network.

It is therefore expected that the level of traffic volumes from the development site will be reduced in future while the number of public transport users will be increased. It is further demonstrated that the temporary entrance will have no negative traffic impact to the future bus network.

Metro Link

In 2018 / 2019, the National Transport Authority and Transport Infrastructure Ireland published the Emerging Preferred Route (EPR) for a north-south, high-frequency metro line linking Swords, Dublin Airport, Irish Rail, DART, Dublin Bus and Luas services, creating fully integrated public transport in the Greater Dublin area. The Fosterstown Metro Station will be proposed on the opposite of the development site and the level of local pedestrian movements is expected to be significantly increased once it is operated. Hence, it is considered that the provision of the signalised pedestrian crossing facilities (*refer to Figure 5*) on the R132 will be beneficial to facilitate the potential additional pedestrian movements to the Fosterstown Metro Station in a safe and convenience environment.

It is noted that the further analysis indicates the proposed temporary access is able to operate below the normal capacity with a low queue length when the development is completed, and the pedestrian phase is included in the analysis as part of proposed signal phasing plan.

Based on the statement above, it is clearly demonstrated that the proposed temporary site entrance is able to operate well on R132 and will have no negative impact on the future public infrastructure in the short and long term. Also, the temporary site entrance will be closed when vehicular access to the lands is made available from the lands to the north.

5 CAR PARKING STRATEGY

The proposed car parking strategy at the site has been developed taking into consideration a variety of factors to ensure the appropriate number of spaces are provided which is in line with current sustainable travel and development objectives. These are set out following.

CAR PARKING STANDARDS

Chapter 12 of the *Fingal Development Plan 2017 – 2023* sets out objectives and requirements in relation to transportation. In particular, *Table 12.8* sets out the parking requirements for various types of developments with the relevant standards recreated below.

- Apartment, townhouse 1 bedroom - 1 space
- Apartment, townhouse 2 bedroom – 1.5 space
- Apartment, townhouse 3+ bedroom – 2+ space

However, the car parking standards in the development plan are split into Zone 1, which allows fewer car parking spaces, and Zone 2 which allows a higher number of car parking spaces. The definitions of car parking zones are as follows.

Zone 1 applies to areas which are:

- Within 1600m of DART, Metro, Luas or BRT, (existing or proposed);
- Within 800m of a Quality Bus Corridor;
- Zoned MC Major Town Centre;
- Subject to a Section 49 Scheme.

Zone 2 applies to all other areas.

As the proposed development is within 1600m of the proposed Metro station and within 800m of the existing Swords QBC, it is therefore classed as Zone 1, allowing for a reduction in the car parking spaces provided.

Thus, taking the above into consideration, combined with the highly accessible location of the development site as outlined in the previous section, there is scope to reduce the quantum of car parking in line with the Development Plan standards.

It is also noted that the updated *Sustainable Urban Housing, Design Standards for New Apartments (December 2020)* from the Department of Housing, Planning and Local Government are also applicable in this instance with respect to the residential car parking provision. Section 4 of these guidelines sets out guidance and defines Central and/or Accessible Urban Locations, stating:

"*In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances. The policies above would be particularly applicable in highly accessible areas such as in or adjoining city cores or at a confluence of public transport systems such rail and bus stations located in close proximity.*

These locations are most likely to be in cites, especially in or adjacent to (i.e. within 15 minutes walking distance of) city centres or centrally located employment locations. This includes 10 minutes walking distance of DART, commuter rail or Luas stops or within 5 minutes walking distance of high frequency (min 10 minute peak hour frequency) bus services"

Based on the above proximity of the development site to existing and proposed public transport hubs along with the location of the proposed development within walking distance of employment locations (Swords town centre and Airside Retail Park), it is clear that the development falls into this category meaning it is wholly appropriate to provide a reduced quantum of car parking at the proposed development.

PLANNING PRECEDENT

Precedent with respect to parking provision at SHD schemes has been set through a number of approvals to date. These include the following:

Reference No.	Name of Scheme	No. of Units/ No. of Car Parking Spaces	Car Parking Ratio
ABP-304068-19	Roselawn, Stillorgan Road, Foxrock, Dublin 18	142/91	0.64
ABP-303306-18	Belgard Gardens, Tallaght, Dublin 24	438/129	0.25
ABP-303358-18	Swiss Cottage, Santry, Dublin 9	112/34	0.3
ABP-303435-19	Dullux Facotry Site, Davitt Road, Dublin 12	265/109	0.4
ABP-303803-19	Cookstown Second Avenue, Cookstown Industrial Estate, Tallaght, Dublin 24	196/67	0.3
ABP-308366-20	Phase 1 lands, Townlands of Fosterstown North and Cremona, Swords, Co. Dublin.	278/206	0.74

As can be seen from the above, there are a number of schemes in similarly accessible locations with similar access to local amenities which have been granted permission by ABP for a rate of car parking in line with or below what is now proposed.

RESIDENTIAL CAR OWNERSHIP & USAGE

The provision of residential car parking is considered to be a balance between meeting an appropriate level of demand while also encouraging travel by more sustainable means and preventing overspill parking. While it is acknowledged that parking provision at destination, e.g. at work, is a critical factor, it cannot be denied that easier access to a private vehicle will make driving on a regular basis a more attractive option and must play a role in private car usage.

As a result, the parking provision at residential developments must also be given due consideration as per current national guidance. This is a critical consideration as part of the overall strategy proposed for this development which seeks to facilitate a cultural shift to more sustainable modes of travel.

As a starting point, and in order to establish the actual demand for residential car parking likely to be experienced by residents at the development, data from the 2016 Census has been interrogated. In this instance, the car ownership statistics have been obtained for the people currently living in areas highlighted in *Figure 14* following. These areas have been selected primarily for their proximity to the development site which would give the most accurate representation of local travel patterns which are likely to be experienced at the development site. Due to the nature of the Census data and how it is made publicly available, it is not possible to isolate specific developments and obtain the associated data meaning an apartment only development in this or a similar location cannot be selected. As a result, the smallest geographical areas available, known as "small areas" have been used.

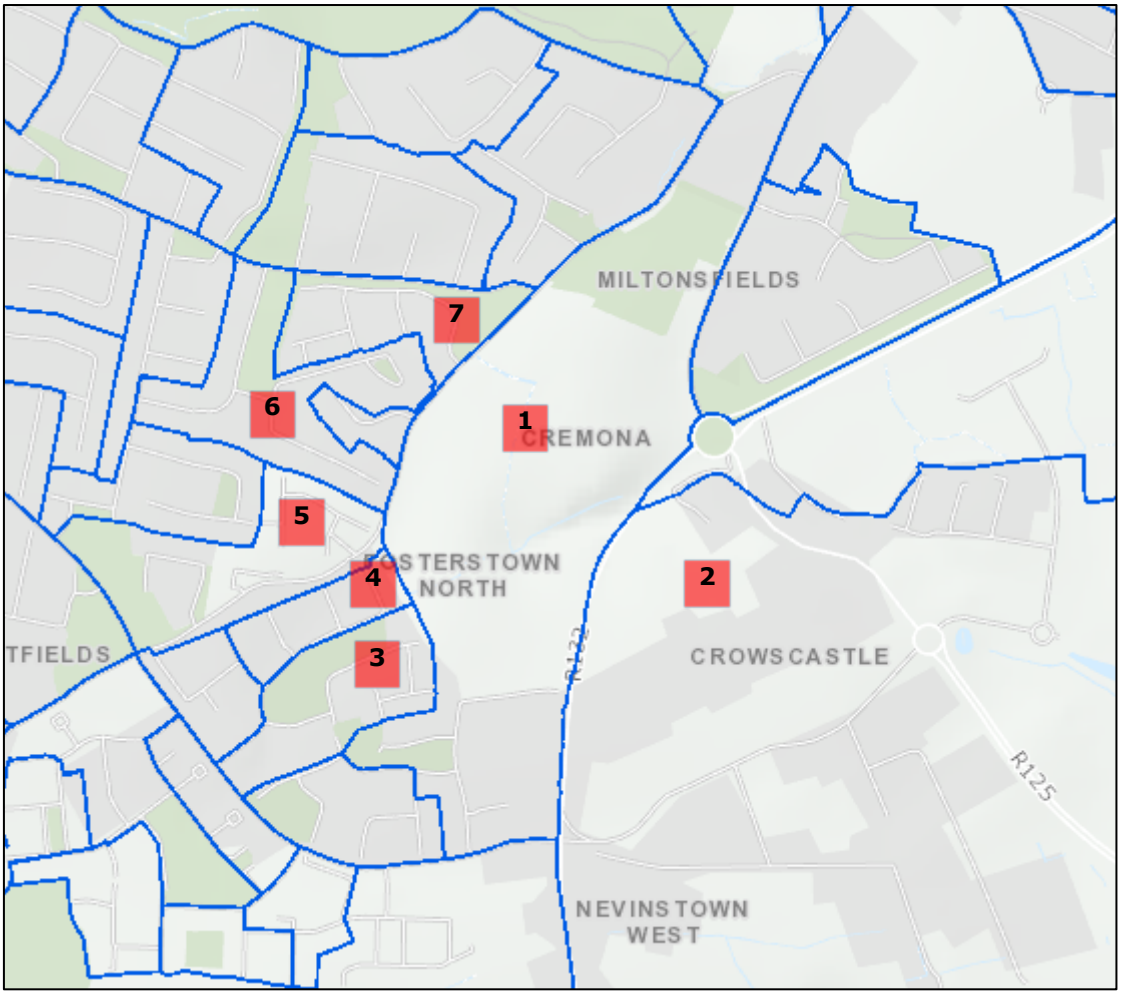


Figure 16: CSO Census 2016 Electoral Division Map (www.census.cso.ie)

The areas considered are defined as follows:

1. Small Area Sa2017_**267132037**;
2. Small Area Sa2017_**267099015**;
3. Small Area Sa2017_**267132035**;
4. Small Area Sa2017_**267132031**;
5. Small Area Sa2017_**267132032**;
6. Small Area Sa2017_**267132033;**
7. Small Area Sa2017_ **267132034.**

The data for households who do not own a car in each of these areas is presented in *Table 7* below.

Area	No. Apartments	No. Houses	No. Households with No Car	% Households with No Car
1	61	63	22	17.7%
2	74	41	11	9.6%
3	1	82	7	8.4%
4	30	61	7	7.7%
5	19	113	17	12.9%
6	*1*	*120*	*7*	*5.8%*
7	*12*	*75*	*7*	*8.1%*

Table 7: CSO Census 2016 Car Ownership Data

As can be seen, the data shows that range of 6% - 18% of the local area do not require a car parking space, the above show that the majority of the existing local area is mainly houses and generally as the TRICS database shows houses have a greater trip generation potential than apartments. However, it is also worth considering that, while many residents own a car or multiple cars, there is still a question as to how necessary that is. In other words, how many residents own a car that is used relatively infrequently. To gauge this, the Census data has again been interrogated, this time from a car usage point of view, specifically to identify the number of residents who drive for their daily commute, which is considered to represent the majority of people's day to day travel. The results are presented in *Table 8* following for workers.

Area	No. Workers	% Households with No Car	No. Workers that Drive	% Workers that Drive
1	209	17.7%	110	52.6%
2	319	9.6%	102	32.0%
3	147	8.4%	76	51.7%
4	172	7.7%	86	50.0%
5	187	12.9%	115	61.5%
6	179	*5.8%*	96	53.6%
7	135	8.1%	75	55.6%

Table 8: CSO Census 2016 Car Usage Data – Workers

The data shows that despite the higher levels of car ownership, only between 32 – 62% of workers at the site use their car for their daily commute. On that basis, a significant portion of car parking is used for car storage. In other words, many residents commuting in the local area do so by more sustainable means other than private car travel and, for the majority of the time, their vehicles remain at home, unused but are still available for more infrequent, one off trips, such as bulky shopping trips which could not be facilitated through public transport or weekend, off peak recreational trips.

Overall, the data implies that there is not a direct impact on traffic generation as a result of parking provision in this location but there is scope for reduced car ownership at the development site relative to the existing levels locally. Particularly the surrounding area comprises almost exclusively housing development while the proposed development consists solely of apartments, which traditionally have a lower associated demand for car parking.

PARKING MANAGEMENT

A key aspect of the strategy will be the ongoing management of parking at the site. The parking strategy will come into effect from initial contact with prospective residents. It will be made very clear at the initial stage of communication as to what the parking availability is at the site and the lack of long term alternatives in the surrounding area. This is in line with Section 4.24 of the Design Standards for New Apartments.

Measures to prevent unauthorised car parking will be investigated should the need arise and may include:

- A clamping system whereby any cars parked in an unapproved location will be clamped and the owner required to pay a fine for release;
- Ongoing monitoring of visitor and crèche parking to ensure appropriate use.

All residents will be advised of any such measures as part of the initial/ongoing consultation with appropriate signage also provided.

CAR & CYCLE PARKING PROVISION

Taking the above into consideration, car parking provision at the site needs to strike a considerate balance between a number of factors including:

- The promotion of sustainable modes of travel, which are within a reasonable walking distance of the development site;
- Facilitating an appropriate level of car storage in line with expected car ownership at the development;
- Giving due consideration to the prevention of potential overspill parking into the local area;
- Giving due consideration to the cost implications with respect to the provision of car parking, particularly at basement level;
- The topography of the site and the desire to integrate the proposed development into the existing landscape, particularly with respect to the

retention of the existing trees which limits the potential for both underground and surface car parking provision.

As a result, provision in line with Section 4.22 of the *Sustainable Urban Housing, Design Standards for New Apartments* is considered appropriate. As a result it is proposed to provide 300 no. car parking spaces in basement level and 30 no. car parking spaces on ground level. There are 330 no. car parking spaces in total to serve the proposed apartment units.

1519 no. bicycle parking spaces in total will be provided to serve the proposed development. 828 no. cycle spaces are proposed to locate in the basement, an additional 691 no. cycle spaces will be located in designated storage at ground level.

6 POTENTIAL IMPACT OF DEVELOPMENT CONSTRUCTION

Construction vehicles will fall into 2 categories, heavy and light vehicles. Heavy vehicles will include vehicles for removing excavated material from the site as well as deliveries of concrete and other larger construction elements such as prefabricated structure. Light vehicles will include cars and small delivery vehicles such as vans.

Based on discussions with a tier 1 contractor, the following estimates for weekday traffic have been made with respect to construction traffic based on experience at similar projects in similar locations.

- 60 no. private vehicles per day from staff and site visitors i.e. 120 no. vehicle movements;
- 40 no. light goods vehicles per day from subcontractor staff i.e. 80 no. vehicle movements;
- 100 no. heavy goods vehicles per day during peak excavation process i.e. 200 no. vehicle movements;
- 40 no. heavy goods vehicles per day outside of the peak excavation periods i.e. 80 no. vehicle movements.

To estimate the peak hour input as result of construction activity, a number of factors have been considered as follows:

- Based on the traffic surveys carried out as part of the Traffic Impact Assessment for this project, the peak traffic hours are defined as 08:15 – 09:15 and 16:45 – 17:45;
- The peak excavation period is assumed to be during the basement excavation;
- Site workers travelling by private vehicle will access the site just before the permitted working hours start and leave just after they end i.e. before 08:00 and after 19:00. This means they will be entering and leaving the site outside of peak traffic hours;
- Heavy goods vehicles will be spread across the course of the day and, where possible, scheduled to avoid concurrence with the peak traffic hours, however

for the purposes of this assessment this element of construction has been spread evenly across the course of the day including the peak hours;

- The number of excavation heavy goods vehicles is based on a predicted maximum 10 vehicles per hour based on a realistic availability and assignment of resources. This equates to an average of just 1 additional vehicle every 6 minutes;
- Sub-contractor vehicles will be spread throughout the course of the da but for the purposes of this assessment will arrive within the peak hours.

Taking the above in consideration and assuming a worst case scenario of sub contract staff all arriving during the peak hours (noting that this is unlikely as the site will already be open) and as deliveries are expected to arrive to the site throughout the day assuming 10% arrive during the peak hour (again unlikely given that deliveries will be scheduled outside of the peak hours) the below worst case scenario is assumed for the construction stage.

Vehicle Type	AM Peak	PM Peak	Daily	Trips
Private Vehicles	0	0	60	120
Subcontract Staff	40	40	40	80
Excavation Vehicles	10	10	100	200
Delivery	4	4	40	80
Total	54	54	240	480

Table 9: Construction Stage Traffic Estimates

Given the above, the construction period traffic is estimated as 54 arrivals and 14 departures during the AM Peak and 14 arrivals and 54 departures during the PM Peak. On a daily basis the construction traffic is estimated at 480 vehicle trips.

This compares with 25 arrivals and 114 departures during the AM Peak and 107 arrivals and 40 departures during the PM Peak of the operational phase of the proposed development. The daily trip generation estimates for the development operation phase is estimated as 1242 trips.

As can be seen from the above the construction period traffic volumes are considerably lower than the operational phase traffic volumes. This is particularly evident in the daily traffic volumes that shows the construction traffic volumes at only 29% of the operational phase of the development.

It is therefore considered, given the above, that the construction stage traffic does not require further analysis as it has considerably less impact on the local road network then the operational stage traffic volumes.

It should be noted that the above estimates for construction volumes are an absolute worst case scenario for AM and PM Peaks, it is more likely that measures will be used to ensure construction traffic does not significantly negatively impact on these peaks such as scheduling deliveries outside of the peak hours.

The following points are also noted with regard to construction traffic:

- Taking into consideration the need to balance the promotion of sustainable travel against the risk of over spill parking, appropriate and limited on-site provision will be made for car parking by site construction personnel;
- Adequate on-site compounding will be provided to prevent any potential overflow onto the local transport network;
- The potential for construction staff to be brought to the site in vans/minibuses will be investigated. This would serve to reduce the overall trip generation potential of the construction period;
- Delivery vehicles travelling to and from the site will be spread across the course of the working day meaning the number of HGV's travelling during the peak hours will be relatively low.

7 POTENTIAL IMPACT OF DEVELOPMENT OPERATION

In order to assess the actual impact of the operational development on the local road network, a number of different scenarios have been analysed as follows:

- *Base Year (2020)* – The current performance of the local road network was initially assessed along with the impact of the proposed development to establish which junctions require more detailed analysis;
- *Year of Opening (2024)* – The performance of the local road network was then assessed for Year of Opening. In order to show the true impact of the proposed development, both the Do Nothing, Do Something and Do Maximum scenarios were analysed;
- *Design Year (2039)* – The local road network was analysed for Design Year considering the Do Nothing, Do Something and the Do Maximum scenario.

As outlined previously, the assessment considered the following scenarios.

- Do Nothing – no development taking place in the local area and only allowance for natural background traffic growth;
- Do Something – natural background traffic growth and the additional traffic estimated to be generated by the proposed development and phase 1 development of zoned lands to the north ;
- Do Maximum – natural background traffic growth, the additional traffic estimated to be generated by the proposed development and the zoned lands to the north as well as the changes to travel patterns and infrastructure as a result of the Fosterstown Link Road.

The junction analysis was carried out using TRANSYT 15, Junctions 9 while the link capacities for the year of opening and the design year were assessed based on the same methodology outlined earlier in the report.

BASE YEAR

In order to establish which junctions require more detailed analysis, the impact of the proposed development relative to the existing traffic flows has been assessed. The criteria used for this scoping exercise is based on the guidance set out in the TII Traffic & Transport Assessment Guidelines (2014) which states that an assessment is required when:

"*Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road*"

or

"*Traffic to and from the Development exceeds 5% of the traffic flow on the adjoining road where congestion exists or the location is sensitive*"

With regard to the scope of the assessment, the guidelines state:

"*In general, the study area should include all road links and associated junctions where traffic to and from the development may be expected to exceed 10% of the existing traffic movements, or 5 % in congested or other sensitive locations, including junctions with national roads. Where two or more of the supplementary criteria as indicated in Table 2.3 apply in relation to any of the adjoining links or junctions, then those links and junctions should also be considered for inclusion in the study area*"

It is noted that Fingal County Council apply a reduced standard of 5% of existing movements, or 2.5 % in congested or other sensitive locations.

The referenced Table 2.3 contains a series of sub-thresholds for when a Traffic & Transport Assessment should take place. These are summarised as follows:

- The character and total number of trips in / out combined per day are such that as to cause concern;

- The site is not consistent with national guidance or local plan policy or accessibility criteria contained in the Development Plan;
- The development is part of incremental development that will have significant transport implications;
- The development may generate traffic at peak times in a heavily trafficked/ congested area or near a junction with a main traffic route;
- The development may generate traffic, particularly heavy vehicles in a residential area;
- There are concerns over the development's potential effects on road safety;
- The development is in a tourist area with potential to cause congestion;
- The planning authority considers that the proposal will result in a material change in trips patterns or raises other significant transport implications.

Given the nature and estimated traffic generation potential of the proposed development, it is felt that it does not meet any of the above thresholds.

As a result, the percentage increase in traffic has been used as the scoping basis for this assessment, as shown in the following:

- *Diagram 22: % Impact of Development on A.M. Peak Traffic;*
- *Diagram 23: % Impact of Development on P.M. Peak Traffic;*

The above figures show that the increase in traffic as a result of the proposed development is above 2.5% at the majority of junctions within the study area, it was considered that all junctions required further consideration.

In order to ensure an accurate assessment, the models for each junction has first been calibrated by comparing its output results for queues against those recorded on-site during the traffic surveys. This allows the model to be adjusted accordingly as part of an iterative process until an acceptable level of correlation is achieved. A summary of this process can be found in *Appendix D* of this report which shows the modelled queues are a good match for the on-site survey results meaning they are considered a good representation of the junctions and are fit for purpose.

YEAR OF OPENING

As noted previously, the assessment considers the Do Nothing, Do Something and Do Maximum scenarios. The Do Something scenarios are established by adding the traffic estimated to be generated by the proposed development to the local network. The Do Maximum Scenarios are established by additional lands to the North and Fosterstown Link Road, as shown in the following:

- *Diagram 24: 2024 A.M. Peak Hour Flows Do Something;*
- *Diagram 25: 2024 P.M. Peak Hour Flows Do Something;*
- *Diagram 26: 2024 AADT Do Something;*

- *Diagram 27: 2024 A.M. Peak Hour Flows Do Maximum;*
- *Diagram 28: 2024 P.M. Peak Hour Flows Do Maximum;*
- *Diagram 29: 2024 AADT Do Maximum.*

Prior to the analysis of the individual junctions, the main routes have been assessed for the year of opening Do-Something scenario, with the results shown in *Table 10.*

Link	Width (m)	Link Capacity (veh/hr)	A.M. Peak (veh/hr)	RFC (%)	P.M. Peak (veh/hr)	RFC (%)
R132	12.3	1900	1215	64	1216	64
L2300	7.5	1,300	954	73	738	57
Forest Road	6.75	900	486	54	394	44

Table 10: 2024 Do Something Link RFC Values

As can be seen, the local links continue to operate with reserve capacity with RFC values remaining below 73% in each instance despite the increased traffic levels.

Link	Width (m)	Link Capacity (veh/hr)	A.M. Peak (veh/hr)	RFC (%)	P.M. Peak (veh/hr)	RFC (%)
R132	12.3	1,900	1241	65.3	1221	64.3
Fosterstown Link Road	6.5	1,260	924	73.4	1087	86.3
L2300	7.5	1,300	789	60.7	455	35.0
Forest Road	6.75	900	391	43.5	335	37.3

Table 11: 2024 Do Maximum Link RFC Values

As can be seen, the local links continue to operate with reserve capacity with RFC values remaining below 87% in each instance despite the increased traffic levels.

In regards to RFC values of the local links are varying from Do-Something Scenario to the Do-Maximum Scenario, it is considered as having potential additional trips generate from 3rd party development and local area to the proposed site entrance on the R132.

Tables 12 – 31 following show the results of the Do Nothing, Do Something and Do Maximum analysis for the Year of Opening, thereby allowing for a direct comparison of both scenarios to highlight the true impact of the proposed development.

When considering the below results, the following should be taken into account:

- The models for existing signalised junctions have used the signal plan currently in place;
- For Junction 2 in Do Maximum scenario, an all red pedestrian phase has not been included given the scale of the junction and associated crossings distances. Instead pedestrian links will run with alternate traffic arms.
- Junction 5 for the Do Maximum scenario considers a simple three stage signal plan, one of which is a dedicated pedestrian all red stage as part of each cycle;

- Do Maximum Scenario do not include the assessment of proposed temporary entrance access as it will be closed when vehicular access to the lands is made available from the lands to the north as outlined previously;
- Degree of Saturation (DOS) and RFC are interchangeable and values are shown as a percentage. The difference in terminology is due to the different output of the Junctions 9 and Transyt Models.
- Queue lengths are shown in PCUs;
- All values shown represent the maximum experienced by the respective arm;
- All modelling output files can be found in *Appendix E* of this report.

Junction 1

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	DOS	*Queue*	*DOS*	*Queue*
Main Street (N)	76	11.45	71	10.24
Forest Road	85	19.15	74	12.26
Main Street (S)	84	18.62	72	18.01

Table 12: Junction 1 – 2024 Peak Hour Do Nothing Analysis Results

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	DOS	*Queue*	*DOS*	*Queue*
Main Street (N)	77	11.71	74	10.65
Forest Road	88	20.35	76	12.85
Main Street (S)	86	19.68	73	18.59

Table 13: Junction 1 – 2024 Peak Hour Do Something Analysis Results

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	DOS	*Queue*	*DOS*	*Queue*
Main Street (N)	64	10.46	64	10.02
Forest Road	69	13.07	65	10.08
Main Street (S)	69	14.26	60	14.25

Table 14: Junction 1 – 2024 Peak Hour Do Maximum Analysis Results

The results clearly show that the impact of the Fosterstown Link Road will result in a significant reduction in DOS and Queue length on Forest Road and Main Street (S). Vehicles who were in the Do Nothing Scenario and Do Something Scenario travelling through Main Street to get to and from Forest Road and the R132 can in the Do Maximum Scenarios take the Fosterstown Link Road.

Junction 2

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	RFC	*Queue*	*RFC*	*Queue*
R125	67	2.2	79	4.0
R132 - (S)	40	0.7	43	0.8
R836	50	1.1	42	0.8
R132 - (N)	76	3.5	75	3.3

Table 15: Junction 2 – 2024 Peak Hour Do Nothing Analysis Results

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	DOS	*Queue*	*DOS*	*Queue*
R125	68	2.3	79	4.2
R132 - (S)	45	0.9	44	0.9
R836	53	1.2	44	0.9
R132 - (N)	79	4.1	75	3.3

Table 16: Junction 2 – 2024 Peak Hour Do Something Analysis Results

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	DOS	*Queue*	*DOS*	*Queue*
R132 Dublin Road (N)	112	3.79	127	172.62
R125	111	0	119	81.12
R132 Dublin Road (S)	86	8.33	132	142.73
Fosterstown Link Road	75	7.15	61	3.56
Main Street	92	3	87	6.19

Table 17: Junction 2 – 2024 Peak Hour Do Maximum Analysis Results

The results show that the junction continues operates within normal capacity limits during both peak hours even within the Do Something scenario. The Do Nothing scenario and Do Something scenario show the roundabout is approaching capacity (85% generally accepted as maximum capacity for uncontrolled junction). The redistribution of the priority because of the introduction of the signalised junction in the Do Maximum will result in the minor arm receiving more priority so the change in DOS is as expected in the Do Maximum Scenarios.

Junction 3

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R132 (N)	109	106.7	91	20.08
Nevinstown Lane	98	22.96	59	9.46
R132 (S)	68	12.46	119	111.95
L2300	83	21.74	84	12.77

Table 18: Junction 3 – 2024 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R132 (N)	111	110.38	93	20.47
Nevinstown Lane	98	27.16	59	9.6
R132 (S)	69	13.63	121	119.7
L2300	85	22.49	86	13.46

Table 19: Junction 3 – 2024 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R132 (N)	114	61.23	83	16.78
Nevinstown Lane	87	11.34	68	9.48
R132 (S)	63	11.05	109	84.09
L2300	85	21.58	86	12.56

Table 20: Junction 3 – 2024 Peak Hour Do Maximum Analysis Results

During both peak hours, the junction is shown to operate above the normal capacity limit of 90% for the Do Nothing scenario, with a maximum RFC value of 119% in the PM Peak. The proposed development has a relatively minor impact in this regard, the maximum of RFC value still remains at 121%.

Junction 4

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	78	10.54	73	6.78
L2300	69	13.03	71	14.5
Forest Road (S)	72	10.23	81	14.54
Rathingle Road	79	13.78	48	5.34

Table 21: Junction 4 – 2024 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	78	10.6	74	6.95
L2300	72	13.97	72	14.72
Forest Road (S)	72	10.27	82	15
Rathingle Road	79	13.85	48	5.73

Table 22: Junction 4 – 2024 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	86	15.85	71	9.93
L2300	55	8.64	67	10.77
Forest Road (S)	88	13.8	80	15.96
Rathingle Road	81	14.98	78	6.47

Table 23: Junction 4 – 2024 Peak Hour Do Maximum Analysis Results

The results show that the impact of the proposed development is low in both peak hours, with low impacts to DOS values and queue lengths, and in some arms the DOS and queue length reduces due to the introduction of the Fosterstown Link Road.

Junction 5

Approach	A.M. Peak Hour		P.M. Peak Hour	
	RFC	*Queue*	*RFC*	*Queue*
Forest Road (N)	3	0.0	3	0.1
Forest Road (S)	-	-	-	-
Hawthorn Park	4	0.1	2	0.0

Table 24: Junction 5 – 2024 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	31	4.96	35	5.02
Fosterstown Link Road	11	1.06	3	0.29
Forest Road (S)	23	3.59	46	6.81
Hawthorn Park	7	0.82	2	0.24

Table 25: Junction 5– 2024 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	40	6.35	41	5.61
Fosterstown Link Road	62	7.57	55	8.25
Forest Road (S)	38	5.63	52	8.92
Hawthorn Park	7	1.04	2	0.32

Table 26: Junction 5 Signalised Junction – 2024 Peak Hour Do Maximum Analysis Results

The results show increases in DOS and queue lengths on all arms in Do Something and Do-maximum Scenario, this is due to the introduction of an additional arm on the junction, the Fosterstown Link Road and the change from a priority 3 arm

junction to a signalised 4 arm junction. The junction is however shown to continue to operate well within capacity with relatively minor queue lengths on all arms.

Junction 6

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	67	9.33	50	7.43
River Valley Road	75	12.18	47	5.03
Forest Road (S)	47	4.77	42	5.43

Table 27: Junction 6 – 2024 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	64	9.09	51	7.63
River Valley Road	79	12.99	48	5.19
Forest Road (S)	50	5	43	5.52

Table 28: Junction 6 – 2024 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	61	8.43	43	6.11
River Valley Road	86	15.72	46	4.99
Forest Road (S)	63	7.15	53	6.97

Table 29: Junction 6 – 2024 Peak Hour Do Maximum Analysis Results

The results show that the impact of the proposed development is low in both peak hours, with the junction continuing to operate within capacity in the Do Something Scenario. The variation from the Do Something to the Do Maximum here are attributed to the introduction of the Fosterstown Link Road and the subsequent redistribution of flows.

Temporary Site Entrance – Left in / Left Out Junction

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	***Queue***	***DOS***	***Queue***
R132 (N)	32	8.53	35	9.67
R132 (S)	68	14.61	69	15.39
Entrance Access	38	0.12	16	0.01

Table 30: Development Site Entrance – 2024 Peak Hour Do Something Analysis Results

The results show that the junction operates well within normal capacity limits with extremely low DOS values and queue lengths on all arms during both peak hours in Do-Something scenario.

DESIGN YEAR

As before, the Do Something and Do Maximum traffic flows are established by adding the traffic estimated to be generated by the proposed developments to the local network at the design year, as shown in the following,:

- *Diagram 30: 2039 A.M. Peak Hour Flows Do Something;*
- *Diagram 31: 2039 P.M. Peak Hour Flows Do Something;*
- *Diagram 32: 2039 AADT Do Something;*

- *Diagram 33: 2039 A.M. Peak Hour Flows Do Maximum;*
- *Diagram 34: 2039 P.M. Peak Hour Flows Do Maximum;*
- *Diagram 35: 2039 AADT Do Maximum.*

Prior to the analysis of the individual junctions, the main links in the network have been assessed for the year of opening Do Something and Do Maximum scenarios, with the results shown following.

Link	Width (m)	Link Capacity (veh/hr)	A.M. Peak (veh/hr)	RFC (%)	P.M. Peak (veh/hr)	RFC (%)
R132	12.3	1900	1404	74	1408	74
L2300	7.5	1,300	1099	85	848	65
Forest Road	6.75	900	562	62	455	51

Table 31: 2039 Do Something Scenario Link RFC Values

Link	Width (m)	Link Capacity (veh/hr)	A.M. Peak (veh/hr)	RFC (%)	P.M. Peak (veh/hr)	RFC (%)
R132	12.3	1,900	1392	73.3	1374	72.3
Fosterstown Link Road	6.5	1,260	1020	80.9	1197	95.0
L2300	7.5	1,300	888	68.3	510	39.2
Forest Road	6.75	900	494	54.9	375	41.6

Table 32: 2039 Do Maximum Scenario Link RFC Values

As can be seen, the local links continue to operate capacity limits for the Do Something Scenario. The capacity limit of relative links to the both developments are taken into account in the Do-Maximum Scenario, due to additional Fosterstown Link Road will have highly potential to affect the traffic patterns in the local areas.

Tables 33 – 51 following show the results of the Do Nothing, Do Something and Do Maximum analysis for the Design Year, thereby allowing for a direct comparison of all scenarios to highlight the true impact of the proposed development. When considering the following results, the factors outlined for the year of opening analysis continue to apply.

Junction 1

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Main Street (N)	100	22.09	89	14.61
Forest Road	99	31.8	88	16.81
Main Street (S)	99	30.68	83	23.33

Table 33: Junction 1 – 2039 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Main Street (N)	101	22.57	98	19.36
Forest Road	100	33.48	87	16.72
Main Street (S)	101	34.63	85	24.01

Table 34: Junction 1 – 2039 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Main Street (N)	79	12.79	79	12.62
Forest Road	78	15.78	73	11.98
Main Street (S)	80	17.55	67	16.75

Table 35: Junction 1 – 2039 Peak Hour Do Maximum Analysis Results

As can be seen in Table 34 and Table 35 above, there is a very low increase in DOS and Queue Length with largest change in DOS from Do-Nothing to Do-Something of just 7 %.

The DOS and Queue length of most arms at Junction 1 will be significantly reduced in Do Maximum scenario due to the introduction of the Fosterstown Link Road.

As with the Year of Opening change in the DOS and Queue length from the Do Something to the Do Maximum is attributed to the introduction of the Fosterstown Link Road.

Junction 2

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R125	137	251.69	138	238.84
R132 - (S)	134	126.55	137	152.65
R836	108	80.68	123	134.06
R132 - (N)	137	109.33	122	69.38

Table 36: Junction 2 – 2039 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R125	145	300.93	140	252.26
R132 - (S)	134	127.6	137	153.18
R836	120	146.55	134	184.79
R132 - (N)	138	111.99	129	82.08

Table 37: Junction 2 – 2039 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R132 Dublin Road (N)	129	204.12	140	249.67
R125	129	106.49	140	156.39
R132 Dublin Road (S)	108	72.37	148	201.37
Fosterstown Link Road	76	7.24	63	3.77
Main Street	97	17.2	91	8.11

Table 38: Junction 2 – 2039 Peak Hour Do Maximum Analysis Results

The results show that the junction operates outside maximum capacity in the Do Nothing, Do Something and the Do Maximum scenarios. The above indicates that regardless of the proposed development taking place this junction will reach its maximum capacity limits.

It should be stressed however, that no reduction in vehicular traffic has been allowed for and with the introduction of Bus Connects and Metro Link through and adjacent to this junction it is expected that future year results may be lower than shown in the above table.

It should also be noted that the current plan being brought forward by Fingal County Council allows for bus priority measures that will promote sustainable modes of transport over private vehicles, this has the effect of increasing DOS for general traffic users but will ultimately increase modal share of public transport and potentially subsequently then help to remove private vehicles from the network. The future plan also allows for cyclist and pedestrian crossings on the network, further improving the level of service for vulnerable road users.

The Do Maximum scenario sees the junction DOS rise to a maximum of 148%. As this report includes the future buildout of the LAP lands with respect to trip generation while also applying the aforementioned growth factors, it is likely that there is a significant element double counting between the two. It should therefore be considered that traffic flow may not reach the levels analysed as part of this report.

Junction 3

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	DOS	*Queue*	*DOS*	*Queue*
R132 (N)	135	134.3	109	61.68
Nevinstown Lane	121	75.96	69	11.74
R132 (S)	108	75.44	148	212.27
L2300	116	82.94	122	58.63

Table 39: Junction 3 – 2039 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R132 (N)	135	127.1	110	59.1
Nevinstown Lane	136	101.7	74	13.03
R132 (S)	109	78.16	151	223.2
L2300	119	90.08	124	61

Table 40: Junction 3 – 2039 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R132 (N)	131	157.8	97	24.75
Nevinstown Lane	98	20.71	76	11
R132 (S)	75	17.19	126	146.5
L2300	107	59.5	108	41.04

Table 41: Junction 3 – 2039 Peak Hour Do Maximum Analysis Results

In the both peak hour, the junction is shown to operate above the normal capacity limit of 90% for the Do Nothing scenario, with a maximum RFC value of 151% in the PM Peak.

Junction 4

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	95	16.74	84	8.92
L2300	77	16.01	82	18.53
Forest Road (S)	94	16.16	94	20.79
Rathingle Road	81	16.96	57	6.38

Table 42: Junction 4 – 2039 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	88	13.94	86	9.36
L2300	79	17.13	83	18.95
Forest Road (S)	94	16.58	95	21.71
Rathingle Road	81	17.25	57	6.76

Table 43: Junction 4 – 2039 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	96	22.54	79	11.83
L2300	62	10.12	75	12.73
Forest Road (S)	98	20.7	89	20.13
Rathingle Road	91	19.52	87	7.39

Table 44: Junction 4 – 2039 Peak Hour Do Maximum Analysis Results

The results show that the impact of the proposed development is low in both peak hours, with low impacts to RFC values and queue lengths, and in some arms the DOS and queue length reduces due to the introduction of the Fosterstown Link Road.

Junction 5

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	3	0.0	4	0.1
Forest Road (S)	-	-	-	-
Hawthorn Park	5	0.1	2	0.0

Table 45: Junction 5 – 2039 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	36	5.89	40	5.9
Fosterstown Link Road	11	1.09	3	0.29
Forest Road (S)	27	4.19	50	7.79
Hawthorn Park	8	0.94	3	0.27

Table 46: Junction 5 Signalised Junction – 2039 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	44	7.2	45	6.26
Fosterstown Link Road	66	8.27	61	9.65
Forest Road (S)	44	8.71	60	10.14
Hawthorn Park	8	1.17	2	0.38

Table 47: Junction 5 Signalised Junction – 2039 Peak Hour Do Maximum Analysis Results

The results show increases in DOS and queue lengths on all arms, this is due to the introduction of an additional arm on the junction, the Fosterstown Link Road. The junction is however shown to continue to operate well within capacity with relatively minor queue lengths on all arms.

Junction 6

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	89	14.46	63	9.7
River Valley Road	91	18.74	54	6.05
Forest Road (S)	57	6	48	6.43

Table 48: Junction 6 – 2039 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	93	15.48	63	9.93
River Valley Road	89	18	55	6.31
Forest Road (S)	59	6.25	49	6.5

Table 49: Junction 6 – 2039 Peak Hour Do Something Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Forest Road (N)	61	8.43	50	7.27
River Valley Road	86	15.72	51	5.69
Forest Road (S)	63	7.15	59	8.02

Table 50: Junction 6 – 2039 Peak Hour Do Maximum Analysis Results

The results show that the impact of the proposed development is low in both peak hours, with the junction continuing to operate within capacity in the Do Something and Do Maximum Scenarios. The improvements from the Do Something to the Do Maximum here are attributed to the introduction of an additional entrance on the R132 and the subsequent redistribution of flows.

Development Site Entrance – Left in / Left Out Junction

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
R132 (N)	33	8.87	38	10.84
R132 (S)	72	17.03	74	18.09
Entrance Access	44	0.17	18	0.02

Table 51: Development Site Entrance – 2039 Peak Hour Do Something Analysis Results

The results show that the junction operates well within normal capacity limits with extremely low DOS values and queue lengths on all arms during both peak hours.

SUMMARY

The results of the overall assessment showed that the proposed development will have a low impact on the operation of the links and junctions in the local network with relatively minor impacts on RFC values despite the conservative assessment with respect to trip generation estimates. Junction 3 is the exception to this but has been shown to experience capacity issues irrespective of the proposed development.

As shown previously, the TII traffic background traffic growth factors allowed for a 23% increase in light vehicles and 51% increase in heavy vehicles before the proposed development has been allowed for. Background traffic growth is typically applied to allow for increased traffic due to development meaning there is an element of double counting when allowing for development related traffic. As a result, the background traffic growth in future is considered to be likely overestimated.

The proposed development entrance has been shown to operate well within normal capacity limits under a left in / left out junction layout, associated with dedicated pedestrian signal phase and will have no negative impact on the operation of the local road network. Hence, it is considered that it is the most appropriate junction layout to be operated with the minimum impact on the R132 and future Bus Connects/Metro projects.

The introduction of new Pinnockhill junction is shown in the Do Nothing Scenario and Do Something Scenario is exceed acceptable levels of RFC. As mentioned earlier, this new Pinnockhill junction layout allows for bus priority measures that will promote sustainable modes of transport over private vehicles as part of BusConnects Strategic Plan. Hence, it is expected that it will have the effect of increasing DOS for general traffic users but will ultimately increase modal share of public transport and potentially subsequently then help to remove private vehicles from the network. The introduction of new Pinnockhill junction will improve the safety and experience of pedestrians through the junction, dedicated pedestrian crossings are proposed on all arms.

As mentioned previously, this TIA demonstrates that the proposed development, with a proposed temporary vehicular access to the R132, does not require the Fosterstown Link Road to facilitate the proposed development for any traffic or transportation related reasons. However, noting that the link road could come forward in the future, consideration was given as part of the TIA to the impact of the proposed Fosterstown Link Road with respect to existing traffic flows and the potential change in travel patterns locally due to the new road creating shorter travel routes.

Hence, it is concluded that there are no traffic or transportation related reasons that should prevent the granting of planning permission for the proposed development.

8 DO NOTHING SCENARIO

The Do Nothing scenario would involve leaving the subject site in its current underdeveloped state. This would have a negative impact on the overall development of the area while simultaneously showing no real benefit in transportation terms.

This analysis considered that the existing Pinnockhill roundabout is maintained in its current state in Year of Opening Do-Nothing Scenario. The existing Pinnockhill roundabout (Junction 2) is expected to be upgraded to a new signalised junction in Design Year Do-Nothing Scenario of and it has shown the junction will exceed the maximum allowable capacity even without proposed development in Design Year. Junction 3 is also shown to exceed the capacity even in the Do-Nothing Scenario.

The local transport network has been shown to experience no notable negative impact as a result of a development of the type planned.

9 REMEDIAL/MITIGATION MEASURES

The assessment has shown that no mitigation measures are required to facilitate the proposed development aside from works set out as part of this application.

Mitigation has been identified as potentially being required at Junction 2 and 3 regardless of the proposed development being in place or not.

10 MONITORING

While it has been demonstrated that the proposed development can be accommodated, it is nevertheless recommended that the local area should be monitored in terms of transportation efficiencies into the future.

Joshua Tai (B.E., MIEI)
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O'CONNOR | SUTTON | CRONIN
Multidisciplinary
Consulting Engineers

APPENDIX A: TRAFFIC SURVEY DATA

Data Analysis Services
Traffic-Transportation- Commercial-Innovation

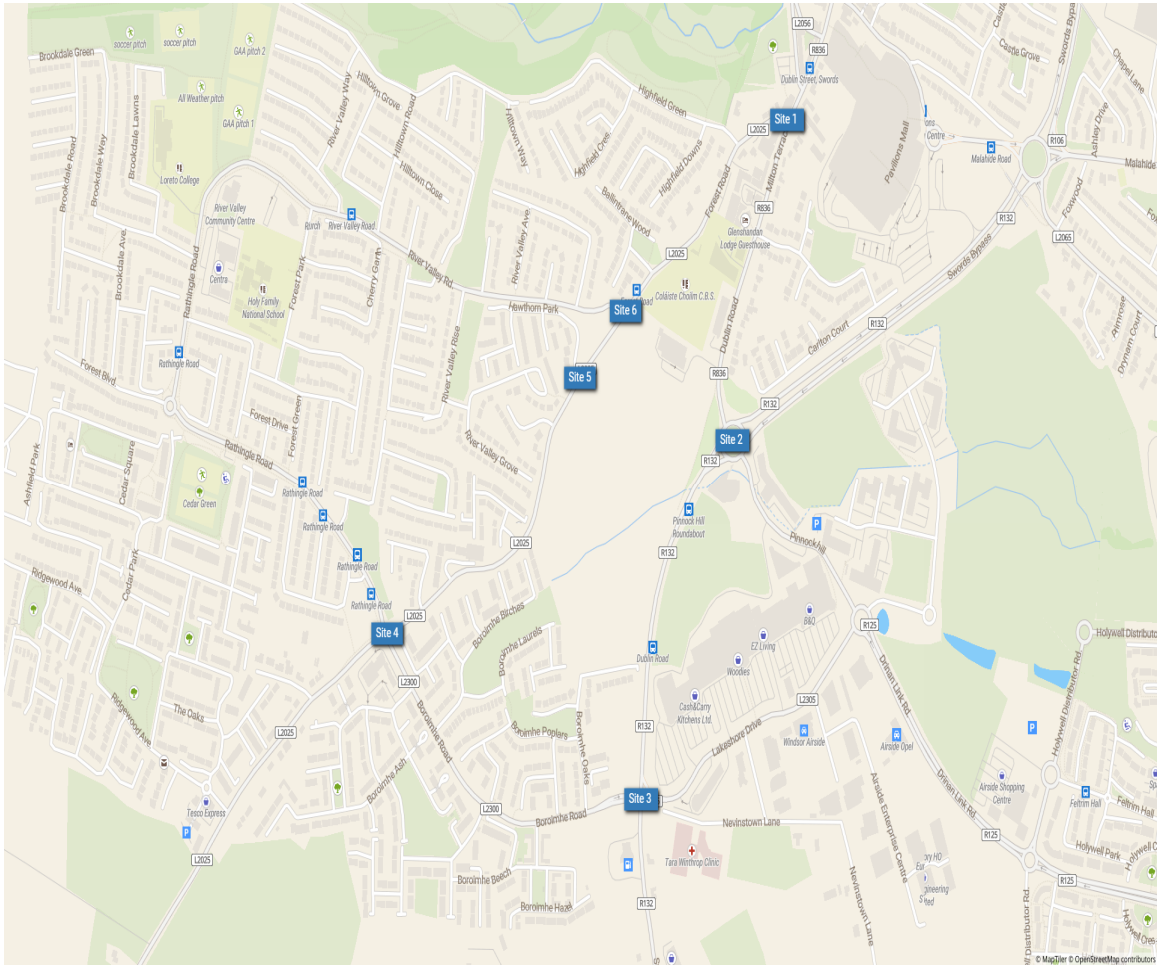
041 20064 Swords

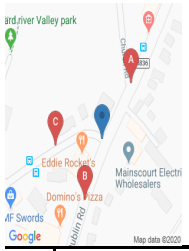
with compliments

ID ASO

Survey Name: 041 20064 Swords

Date: Thu 27 Feb 2020





IDASO

Survey Name: 041 20064 Swords

Site: Site 1

Location: Dublin Rd / Forest Road

Date: Thu 27-Feb-2020

	A => A										A => B										A => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	1	58	1	10	3	0	4	77	81.9	1	1	10	1	3	0	0	2	18	18.6
07:15	0	0	0	0	0	0	0	0	0	0	0	0	69	4	7	2	0	4	86	91	0	0	10	0	2	0	0	5	17	22
07:30	0	0	0	0	0	0	0	0	0	0	7	1	71	5	8	1	0	1	94	89.3	0	0	17	0	0	0	0	2	19	21
07:45	0	0	0	0	0	0	0	0	0	0	1	3	85	5	8	0	1	3	106	107.7	0	0	24	2	3	0	1	3	33	37.3
H/TOT	0	0	0	0	0	0	0	0	0	0	8	5	283	15	33	6	1	12	363	369.9	1	1	61	3	8	0	1	12	87	98.9
08:00	0	0	0	0	0	0	0	0	0	0	1	1	71	6	2	1	0	3	85	87.1	0	0	36	2	3	1	0	3	45	48.5
08:15	0	0	0	0	0	0	0	0	0	0	3	2	85	5	5	2	0	2	104	103.4	0	0	69	2	2	0	0	2	75	77
08:30	0	0	0	0	0	0	0	0	0	0	1	2	70	6	5	3	0	2	89	90.5	0	1	64	2	4	0	0	5	76	80.4
08:45	0	0	0	0	0	0	0	0	0	0	3	0	96	9	8	0	0	3	119	119.6	0	0	56	5	5	1	0	1	68	69.5
H/TOT	0	0	0	0	0	0	0	0	0	0	8	5	322	26	20	6	0	10	397	400.6	0	1	225	11	14	2	0	11	264	275.4
09:00	0	0	0	0	0	0	0	0	0	0	2	0	90	7	6	2	0	1	108	108.4	1	0	36	3	6	1	0	3	50	52.7
09:15	0	0	0	0	0	0	0	0	0	0	2	1	84	7	6	1	0	1	102	101.3	0	0	36	1	3	0	0	3	43	46
09:30	0	0	0	0	0	0	0	0	0	0	1	0	55	7	4	0	0	2	69	70.2	0	0	26	1	2	1	0	2	32	34.5
09:45	0	0	0	0	0	0	0	0	0	0	2	0	67	10	8	3	0	1	91	91.9	0	0	42	1	3	0	0	3	49	52
H/TOT	0	0	0	0	0	0	0	0	0	0	7	1	296	31	24	6	0	5	370	371.8	1	0	140	6	14	2	0	11	174	185.2
10:00	0	0	0	0	0	0	0	0	0	0	1	0	58	7	6	1	0	2	75	76.7	0	0	29	1	2	0	0	3	35	38
10:15	0	0	0	0	0	0	0	0	0	0	0	0	52	3	7	1	0	0	63	63.5	0	0	36	1	1	0	0	1	39	40
10:30	0	0	0	0	0	0	0	0	0	0	0	0	63	5	5	0	1	0	74	75.3	0	0	38	1	3	0	0	3	45	48
10:45	0	0	0	0	0	0	0	0	0	0	2	0	70	7	4	1	0	2	86	86.9	0	0	32	0	4	0	0	2	38	40
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	243	22	22	3	1	4	298	302.4	0	0	135	3	10	0	0	9	157	166
11:00	0	0	0	0	0	0	0	0	0	0	0	0	55	8	8	0	0	2	73	75	0	0	25	1	6	3	0	2	37	40.5
11:15	0	0	0	0	0	0	0	0	0	0	2	0	53	4	2	2	0	1	64	64.4	2	0	31	1	1	1	0	1	37	36.9
11:30	0	0	0	0	0	0	0	0	0	0	0	0	69	3	5	1	1	2	81	84.8	2	0	42	0	3	0	0	2	49	49.4
11:45	0	0	0	0	0	0	0	0	0	0	0	1	73	1	5	0	0	0	80	79.4	0	0	39	2	6	0	0	1	48	49
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	250	16	20	3	1	5	298	303.6	4	0	137	4	16	4	0	6	171	175.8
12:00	0	0	0	0	0	0	0	0	0	0	1	0	63	4	4	3	0	0	75	75.7	0	0	49	4	1	0	0	2	56	58
12:15	0	0	0	0	0	0	0	0	0	0	1	0	67	6	6	3	0	2	85	87.7	0	0	45	4	2	0	0	2	53	55
12:30	0	0	0	0	0	0	0	0	0	0	0	1	84	3	8	0	0	1	97	97.4	0	0	52	3	4	0	0	2	61	63
12:45	0	0	0	0	0	0	0	0	0	0	0	2	56	6	10	2	0	1	77	77.8	1	0	38	1	2	0	0	1	43	43.2
H/TOT	0	0	0	0	0	0	0	0	0	0	2	3	270	19	28	8	0	4	334	338.6	1	0	184	12	9	0	0	7	213	219.2
13:00	0	0	0	0	0	0	0	0	0	0	3	1	67	4	5	1	0	1	82	80.5	0	0	57	1	2	1	0	2	63	65.5
13:15	0	0	0	0	0	0	0	0	0	0	0	1	77	4	9	0	0	0	91	90.4	0	0	35	1	3	0	0	2	41	43
13:30	0	0	0	0	0	0	0	0	0	0	0	0	62	7	11	0	0	1	81	82	0	0	32	3	5	2	0	3	45	49
13:45	0	0	0	0	0	0	0	0	0	0	0	0	103	4	10	0	0	1	118	119	0	0	51	2	2	1	0	1	57	58.5
H/TOT	0	0	0	0	0	0	0	0	0	0	3	2	309	19	35	1	0	3	372	371.9	0	0	175	7	12	4	0	8	206	216
14:00	0	0	0	0	0	0	0	0	0	0	0	0	74	4	8	4	0	3	93	98	0	0	42	5	4	0	0	1	52	53
14:15	0	0	0	0	0	0	0	0	0	0	1	0	72	7	8	2	0	2	92	94.2	0	0	58	3	1	1	0	1	64	65.5
14:30	0	0	0	0	0	0	0	0	0	0	0	0	61	4	5	1	0	1	72	73.5	0	0	46	4	3	0	0	3	56	59
14:45	0	0	0	0	0	0	0	0	0	0	0	0	66	7	5	0	0	0	78	78	1	1	50	0	2	2	0	3	59	61.6
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	273	22	26	7	0	6	335	343.7	1	1	196	12	10	3	0	8	231	239.1
15:00	0	0	0	0	0	0	0	0	0	0	1	0	63	8	12	1	0	2	87	88.7	1	0	53	1	1	0	0	1	57	57.2
15:15	0	0	0	0	0	0	0	0	0	0	0	0	63	4	14	1	0	0	82	82.5	0	0	45	2	5	0	0	1	53	54
15:30	0	0	0	0	0	0	0	0	0	0	9	0	78	0	6	1	0	0	94	87.3	2	0	39	3	3	0	0	3	50	51.4
15:45	0	0	0	0	0	0	0	0	0	0	1	0	87	6	7	1	0	3	105	107.7	0	2	49	6	4	0	0	3	64	65.8
H/TOT	0	0	0	0	0	0	0	0	0	0	11	0	291	18	39	4	0	5	368	366.2	3	2	186	12	13	0	0	8	224	228.4
16:00	0	0	0	0	0	0	0	0	0	0	5	0	66	4	7	0	0	1	83	80	2	0	56	5	3	0	0	1	67	66.4
16:15	0	0	0	0	0	0	0	0	0	0	3	0	79	5	10	1	0	1	99	98.1	0	0	56	7	5	0	0	1	69	70
16:30	0	0	0	0	0	0	0	0	0	0	2	0	60	8	5	3	0	3	81	83.9	0	0	47	5	3	0	0	2	57	59

	B => A										B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	1	1	24	4	5	2	0	0	37	36.6	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	1	6	7
07:15	1	0	30	4	3	2	0	1	41	42.2	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	1	9	10
07:30	2	0	39	3	10	4	0	2	60	62.4	0	0	0	0	0	0	0	0	0	0	0	0	10	0	3	0	0	1	14	15
07:45	4	0	60	3	3	1	0	1	72	70.3	0	0	0	0	0	0	0	0	0	0	0	0	9	0	2	0	0	2	13	15
H/TOT	8	1	153	14	21	9	0	4	210	211.5	0	0	0	0	0	0	0	0	0	0	0	0	30	2	5	0	0	5	42	47
08:00	3	0	41	4	6	4	0	2	60	61.6	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	1	8	9
08:15	4	1	64	4	5	2	1	0	81	79.5	0	0	0	0	0	0	0	0	0	0	0	0	13	0	1	1	0	3	18	21.5
08:30	1	0	72	0	2	1	0	2	78	79.7	0	0	0	0	0	0	0	0	0	0	0	0	36	0	1	1	0	0	38	38.5
08:45	0	0	75	7	4	3	0	1	90	92.5	0	0	0	0	0	0	0	0	0	0	0	0	27	1	3	0	0	2	33	35
H/TOT	8	1	252	15	17	10	1	5	309	313.3	0	0	0	0	0	0	0	0	0	0	0	0	81	2	6	2	0	6	97	104
09:00	5	0	61	7	6	1	0	2	82	80.5	0	0	0	0	0	0	0	0	0	0	0	0	12	0	2	0	0	0	14	14
09:15	1	0	58	5	12	1	0	0	77	76.7	0	0	0	0	0	0	0	0	0	0	1	0	16	1	1	0	0	0	19	18.2
09:30	2	0	70	6	7	3	0	2	90	91.9	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	18	18
09:45	3	0	67	3	7	0	0	0	80	77.6	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	0	13	13
H/TOT	11	0	256	21	32	5	0	4	329	326.7	0	0	0	0	0	0	0	0	0	0	1	0	58	2	3	0	0	0	64	63.2
10:00	0	0	59	4	7	3	2	1	76	81.1	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	0	15	15
10:15	0	0	61	4	4	0	0	1	70	71	0	0	0	0	0	0	0	0	0	0	0	0	11	1	2	0	0	0	14	14
10:30	3	0	45	5	7	0	0	1	61	59.6	0	0	0	0	0	0	0	0	0	0	0	0	14	0	2	2	0	0	18	19
10:45	0	0	62	4	2	0	0	1	69	70	0	0	0	0	0	0	0	0	0	0	0	1	15	2	5	0	0	0	23	22.4
H/TOT	3	0	227	17	20	3	2	4	276	281.7	0	0	0	0	0	0	0	0	0	0	0	1	54	4	9	2	0	0	70	70.4
11:00	0	0	55	2	4	0	0	0	61	61	0	0	0	0	0	0	0	0	0	0	0	0	13	0	1	2	0	0	16	17
11:15	3	0	64	10	9	2	1	1	90	90.9	0	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	0	16	16
11:30	0	0	70	4	8	4	0	1	87	90	0	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	0	18	18
11:45	1	0	62	6	10	3	0	0	82	82.7	0	0	0	0	0	0	0	0	0	0	0	0	11	0	3	0	0	0	14	14
H/TOT	4	0	251	22	31	9	1	2	320	324.6	0	0	0	0	0	0	0	0	0	0	0	0	56	2	4	2	0	0	64	65
12:00	1	0	68	2	6	3	0	1	81	82.7	0	0	0	0	0	0	0	0	0	0	0	0	15	0	3	1	0	0	19	19.5
12:15	0	1	75	6	5	1	0	2	90	91.9	0	0	0	0	0	0	0	0	0	0	0	0	16	2	4	0	0	0	22	22
12:30	2	2	75	8	2	0	0	0	89	86.2	0	0	0	0	0	0	0	0	0	0	0	0	18	1	1	0	0	0	20	20
12:45	1	1	79	4	4	1	0	0	90	89.1	0	0	0	0	0	0	0	0	0	0	0	0	17	0	3	0	0	0	20	20
H/TOT	4	4	297	20	17	5	0	3	350	349.9	0	0	0	0	0	0	0	0	0	0	0	0	66	3	11	1	0	0	81	81.5
13:00	1	0	90	2	5	2	0	1	101	102.2	0	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	0	16	16
13:15	1	0	91	2	8	3	0	1	106	107.7	0	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	0	28	28
13:30	0	0	83	7	7	1	0	1	99	100.5	0	0	0	0	0	0	0	0	0	0	1	0	13	0	1	0	0	0	15	14.2
13:45	0	1	73	5	5	0	0	0	84	83.4	0	0	0	0	0	0	0	0	0	0	1	0	24	1	3	0	0	0	29	28.2
H/TOT	2	1	337	16	25	6	0	3	390	393.8	0	0	0	0	0	0	0	0	0	0	2	0	79	3	4	0	0	0	88	86.4
14:00	0	0	79	5	15	3	0	1	103	105.5	0	0	0	0	0	0	0	0	0	0	0	0	11	0	3	0	0	0	14	14
14:15	1	2	87	7	5	1	0	1	104	103.5	0	0	0	0	0	0	0	0	0	0	0	1	19	0	1	0	0	0	21	20.4
14:30	0	1	79	7	5	0	0	2	94	95.4	0	0	0	0	0	0	0	0	0	0	1	0	23	0	2	1	0	0	27	26.7
14:45	1	0	69	1	14	1	0	0	86	85.7	0	0	0	0	0	0	0	0	0	0	0	0	16	0	1	0	0	1	18	19
H/TOT	2	3	314	20	39	5	0	4	387	390.1	0	0	0	0	0	0	0	0	0	0	1	1	69	0	7	1	0	1	80	80.1
15:00	3	0	78	6	8	4	0	1	100	100.6	0	0	0	0	0	0	0	0	0	0	0	0	24	0	2	1	0	0	27	27.5
15:15	0	0	64	6	12	2	0	1	85	87	0	0	0	0	0	0	0	0	0	0	0	0	23	1	2	0	0	0	26	26
15:30	0	0	91	3	8	1	0	1	104	105.5	0	0	0	0	0	0	0	0	0	0	0	0	8	0	5	1	0	0	14	14.5
15:45	0	0	92	8	7	1	0	0	114	109.7	0	0	0	0	0	0	0	0	0	0	0	0	15	0	3	1	0	0	19	19.5
H/TOT	9	0	325	23	35	8	0	3	403	402.8	0	0	0	0	0	0	0	0	0	0	0	0	70	1	12	3	0	0	86	87.5
16:00	1	1	66	8	5	0	0	2	83	83.6	0	0	0	0	0	0	0	0	0	0	0	0	20	2	2	0	0	0	24	24
16:15	2	1	93	7	5	1	0	2	111	111.3	0	0	0	0	0	0	0	0	0	0	1	1	19	0	1	0	1	0	23	22.9
16:30	2	2	64	5	11	1	0	1	86	84.7	0	0	0	0	0	0	0	0	0	0	0	0	26	1	1	1	0	0	29	29.5

16:45	0	0	0	0	0	0	0	0	0	0	3	0	71	5	7	1	0	0	87	85.1	0	0	50	1	1	0	0	2	54	56	3	4	78	3	5	1	0	2	96	93.7	0	0	0	0	0	0	0	0	0	0	0	0	24	2	2	0	0	0	28	28
H/TOT	0	0	0	0	0	0	0	0	0	0	13	0	276	22	29	5	0	5	350	347.1	2	0	209	18	12	0	0	6	247	251.4	8	8	301	23	26	3	0	7	376	373.3	0	0	0	0	0	0	0	0	0	0	1	1	89	5	6	1	1	0	104	104.4
17:00	0	0	0	0	0	0	0	0	0	0	2	1	58	2	1	0	0	0	64	61.8	0	0	53	1	7	0	0	2	63	65	1	2	83	3	2	1	0	0	92	90.5	0	0	0	0	0	0	0	0	0	0	0	0	22	1	2	0	0	1	26	27
17:15	0	0	0	0	0	0	0	0	0	0	1	1	81	6	5	2	0	3	99	101.6	0	0	52	1	8	0	0	1	62	63	0	2	84	4	4	3	0	1	98	99.3	0	0	0	0	0	0	0	0	0	0	0	0	23	0	1	0	0	0	24	24
17:30	0	0	0	0	0	0	0	0	0	0	3	0	63	6	5	1	0	1	79	78.1	1	0	46	1	3	0	0	3	54	56.2	0	3	82	5	8	0	0	2	100	100.2	0	0	0	0	0	0	0	0	0	0	0	0	28	0	2	0	0	0	30	30
17:45	0	0	0	0	0	0	0	0	0	0	0	4	78	5	4	0	0	1	92	90.6	0	1	59	6	4	2	0	0	72	72.4	0	3	104	4	0	0	0	1	112	111.2	0	0	0	0	0	0	0	0	0	0	0	0	28	2	0	0	0	0	30	30
H/TOT	0	0	0	0	0	0	0	0	0	0	6	6	280	19	15	3	0	5	334	332.1	1	1	210	9	22	2	0	6	251	256.6	1	10	353	16	14	4	0	4	402	401.2	0	0	0	0	0	0	0	0	0	0	0	0	101	3	5	0	0	1	110	111
18:00	0	0	0	0	0	0	0	0	0	0	0	0	79	4	3	0	0	1	87	88	1	0	64	3	2	0	0	3	73	75.2	2	1	86	3	4	1	0	2	99	99.3	0	0	0	0	0	0	0	0	0	0	0	1	24	0	0	0	0	0	25	24.4
18:15	0	0	0	0	0	0	0	0	0	0	0	0	69	9	4	0	0	2	84	86	0	0	61	2	6	0	0	1	70	71	2	1	86	2	7	0	0	2	100	99.8	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	26	26
18:30	0	0	0	0	0	0	0	0	0	0	0	0	74	8	7	1	0	0	90	90.5	0	0	53	2	3	0	0	3	61	64	0	0	86	8	5	0	0	1	100	101	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	18	18
18:45	0	0	0	0	0	0	0	0	0	0	2	2	76	7	2	0	0	2	91	90.2	0	0	48	3	0	0	0	1	52	53	0	0	87	5	5	0	0	0	97	97	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	23
H/TOT	0	0	0	0	0	0	0	0	0	0	2	2	298	28	16	1	0	5	352	354.7	1	0	226	10	11	0	0	8	256	263.2	4	2	345	18	21	1	0	5	396	397.1	0	0	0	0	0	0	0	0	0	0	0	1	91	0	0	0	0	0	92	91.4
12 TOT	0	0	0	0	0	0	0	0	0	0	66	25	3391	257	307	53	3	69	4171	4203	15	6	2084	107	151	17	1	100	2481	2575	64	30	3411	225	298	68	4	48	4148	4166	0	0	0	0	0	0	0	0	0	0	5	4	844	27	72	12	1	13	978	991.9

C => A										C => B										C => C									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	19	1	4	0	0	0	24	24	0	0	12	0	0	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0	0
0	0	25	0	8	0	0	2	35	37	0	0	12	1	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0
1	0	41	0	2	0	0	0	44	43.2	0	0	17	2	3	0	1	0	23	24.3	0	0	0	0	0	0	0	0	0	0
1	0	49	2	4	0	0	3	59	61.2	0	1	20	2	1	1	0	0	25	24.9	0	0	0	0	0	0	0	0	0	0
2	0	134	3	18	0	0	5	162	165.4	0	1	61	5	5	1	2	0	75	77.5	0	0	0	0	0	0	0	0	0	0
2	0	57	1	1	0	0	2	63	63.4	0	0	17	0	2	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
3	0	69	1	4	0	0	1	78	76.6	1	0	24	0	2	0	0	0	27	26.2	0	0	0	0	0	0	0	0	0	0
3	0	92	0	0	0	0	0	95	92.6	0	0	22	0	2	1	0	1	26	27.5	0	0	0	0	0	0	0	0	0	0
0	0	88	3	3	1	1	0	96	97.8	0	0	22	0	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
8	0	306	5	8	1	1	3	332	330.4	1	0	85	0	6	1	0	1	94	94.7	0	0	0	0	0	0	0	0	0	0
0	0	79	4	2	2	0	3	90	94	0	0	18	1	2	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0	0
0	0	48	4	4	1	0	2	59	61.5	0	0	15	0	1	1	0	0	17	17.5	0	0	0	0	0	0	0	0	0	0
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1	0	43	2	4	1	0	3	54	56.7	1	0	9	1	1	0	0	0	12	11.2	0	0	0	0	0	0	0	0	0	0
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0	1	165	5	15	2	0	7	195	202.4	0	0	49	21	3	1	0	0	74	74.5	0	0	0	0	0	0	0	0	0	0
0	1	38	0	5	0	0	3	47	49.4	0	0	9	0	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
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1	0	55	2	4	1	0	3	66	68.7	0	0	10	1	0	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	0
4	1	182	6	17	3	0	8	221	226.7	0	0	46	1	4	2	0	0	53	54	0	0	0	0	0	0	0	0	0	0
1	0	45	4	4	0	0	2	56	57.2	0	0	16	0	4	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0
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0	0	51	5	4	0	0	1	61	62	0	0	7	0	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
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2	1	196	15	18	1	0	6	239	243.3	0	0	51	2	9	1	0	0	63	63.5	0	0	0	0	0	0	0	0	0	0
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4	0	172	6	15	1	0	8	206	211.3	0	0	60	1	7	1	0	0	69	69.5	0	0	0	0	0	0	0	0	0	0
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1	1	161	9	24	0	0	11	207	216.6	0	0	44	3	5	1	0	0	53	53.5	0	0	0	0	0	0	0	0
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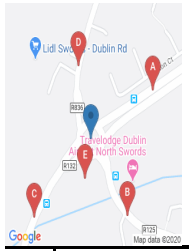

IDASO

Survey Name: 041 20064 Swords

Site: Site 2

Location: R132/R125/R132/R836

Date: Thu 27-Feb-2020

	A => A										A => B										A => C										A => D										A => E										B => A									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	2	0	0	0	0	0	2	2	0	0	64	1	10	0	0	0	75	75	3	1	76	10	21	0	1	3	115	116.3	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	30	1	4	0	0	0	35	35
07:15	0	0	0	0	0	0	0	0	0	0	0	0	76	0	10	1	2	0	89	92.1	1	1	103	5	14	0	2	1	127	129.2	0	0	5	0	0	0	0	1	6	7	0	0	0	0	0	0	0	0	0	0	0	0	29	1	8	5	1	0	44	47.8
07:30	0	0	1	0	0	0	0	0	1	1	0	1	93	1	10	1	2	0	108	110.5	3	1	97	5	11	3	0	7	127	132.5	0	0	6	0	1	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0	0	0	0	57	0	4	1	1	1	65	67.2
07:45	0	0	2	0	0	0	0	0	2	2	0	0	113	4	11	1	1	0	130	131.8	4	0	133	7	10	0	4	5	163	170	0	0	8	1	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	1	0	63	1	4	0	0	0	69	68.2
H/TOT	0	0	5	0	0	0	0	0	5	5	0	1	346	6	41	3	5	0	402	409.4	11	3	409	27	56	3	7	16	532	548	0	0	22	1	2	1	0	1	27	28.5	0	0	0	0	0	0	0	0	0	0	1	1	179	3	20	6	2	1	213	218.2
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08:15	0	0	2	0	0	0	0	0	2	2	0	0	119	0	6	3	0	0	128	129.5	0	3	131	5	13	2	2	5	161	167.8	0	0	18	0	3	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	2	90	2	4	1	0	0	99	98.3
08:30	0	0	2	0	0	0	0	0	2	2	0	0	124	5	5	3	1	1	139	142.8	2	2	153	4	9	1	1	2	174	175	0	0	45	0	1	0	0	1	47	48	0	0	0	0	0	0	0	0	0	0	0	0	80	2	8	1	0	0	91	91.5
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H/TOT	0	0	7	0	1	0	0	0	8	8	1	3	478	11	28	11	3	1	536	543.8	4	7	522	26	45	5	7	18	634	656.2	0	0	93	1	6	0	0	1	101	102	0	0	1	0	0	0	0	0	1	1	0	3	330	9	31	6	2	0	381	384.8
09:00	0	0	0	2	0	0	0	0	2	2	0	2	108	0	7	4	1	0	122	124.1	1	0	107	10	10	2	7	3	140	152.3	1	0	23	0	1	0	0	0	25	24.2	0	0	6	0	1	0	0	0	7	7	0	0	70	1	7	0	0	1	79	80
09:15	0	0	4	0	0	0	0	0	4	4	0	0	97	1	13	5	4	1	121	129.7	1	0	115	8	15	2	6	2	149	159	0	0	24	0	0	0	0	0	24	24	0	0	3	0	1	0	0	0	4	4	0	0	73	3	5	0	0	1	82	83
09:30	0	0	2	1	0	0	0	0	3	3	0	0	86	2	6	4	1	0	99	102.3	0	0	101	6	13	9	4	3	136	148.7	0	0	22	0	3	1	0	0	26	26.5	0	0	3	0	0	0	0	0	3	3	0	0	71	3	7	3	2	2	88	94.1
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H/TOT	0	0	10	3	0	0	0	0	13	13	0	3	366	6	30	16	8	2	431	449.6	3	0	422	30	49	16	23	9	552	596.5	1	0	82	0	4	2	0	0	89	89.2	0	0	14	0	2	0	0	0	16	16	0	0	278	9	28	3	2	5	325	334.1
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10:15	0	0	1	0	0	1	0	0	2	2.5	0	0	80	2	9	2	3	0	96	100.9	1	1	95	7	8	6	2	1	121	126.2	0	0	19	1	3	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	0	53	4	8	3	0	0	68	69.5
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H/TOT	0	0	6	0	0	2	0	0	8	9	0	0	301	12	49	13	8	1	384	401.9	2	1	351	23	44	21	12	6	460	489.9	0	0	46	2	10	1	0	0	59	59.5	0	0	5	0	1	0	0	0	6	6	0	0	235	11	30	6	2	0	284	289.6
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11:45	0	0	2	0	0	0	0	0	2	2	0	0	75	3	10	0	0	0	88	88	1	0	94	5	15	5	6	1	127	137.5	0	0	14	1	2	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	1	60	5	3	1	0	0	70	69.9
H/TOT	0	0	13	0	0	0	0	0	13	13	0	2	285	8	44	7	3	0	349	355.2	1	0	372	30	45	18	21	9	496	540.5	0	0	52	1	6	0	0	0	59	59	0	0	4	0	0	0	0	0	4	4	0	1	264	9	21	2	2	1	300	304
12:00	0	0	1	0	0	0	0	0	1	1	0	1	92	1	16	2	2	0	114	117	0	2	129	10	12	2	5	2	162	170.3	0	0	11	0	3	1	0	0	15	15.5	0	0	0	1	0	0	0	0	1	1	0	0	86	0	11	2	0	0	99	100
12:15	0	0	1	0	0	1	0	0	2	2.5	0	0	84	4	10	3	6	0	107	116.3	0	0	118	8	22	4	2	2	156	162.6	0	0	13	0	1	0	0	0	14	14	0	0	1	0	0	0	0	0	1	1	0	0	70	1	7	0	0	0	78	78
12:30	0	0	3	0	0	0	0	0	3	3	0	0	97	1	15	4	1	0	118	121.3	1	1	88	9	18	1	3	2	123	128	0	0	15	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	86	5	6	3	3	0	103	108.4
12:45	0	0	3	0	0	0	0	0	3	3	0	1	84	2	6	1	2	0	96	98.5	1	1	93	4	6	2	6	2	115	124.4	0	0	17	0	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	1	104	4	9	0	0	1	119	119.4
H/TOT	0	0	8	0	0	1	0	0	9	9.5	0	2	357	8	47	10	11	0	435	453.1	2	4	428	31	58	9	16	8	556	585.3	0	0	56	0	5	1	0	0	62	62.5	0	0	1	1	0	0	0	0	2	2	0	1	346	10	33	5	3	1	399	405.8
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13:15	0	0	4	0	0	0	0	0	4	4	0	1	83	4	11	3	0	0	102	102.9	0	0	106	12	5	4	4	1	132	140.2	0	0	12	0	2	0	0	1	15	16	0	0	0	0	1	0	0	0	1	1	0	2	98	1	12	1	1	0	115	115.6
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13:45	0	0	2	0	0	0	0	0	2	2	0	1	108	8	7	2	1	0	127	128.7	0	1	104	14	7	4	3	0	133	138.3	0	0	14	0	2	0	0	0	16	16	0	0	2	0	0	0	0	0	2	2	0	1	78	4	5	1	0	0	89	88.9
H/TOT	0	0	10	1	1	1	0	0	13	13.5	0	4	381	13	40	11	5	1	455	465.6	1	2	393	37	39	15	20	6	513	550.5	0	0	58	0	5	0	0	1	64	65	0	0	3	0	1	0	0	0	4	4	0	4	351	8	32	6	4	1	406	412.8
14:00	0	0	1	0	0	0	0	0	1	1	0	0	89	4	9	3	0	0	105	106.5	0	0	114	3	12	4	2	4	139	147.6	0	0	12	0	0	2	0	0	14	15	0	0	1	0	0	0	0	0	1	1	0	0	94	1	4	2	0	0	101	102
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14:45	0	0	0	0	0	0	0	0	0	0	0	1	74	3	11	1	5	0	95	101.4	0	2	87	6	7	4	5	1	112	120.3	0	0	19	0	3	0	0	0	22	22	0	0	1	0	0	0	0	0	1	1	0	0	84	3	6	1	0	0	94	94.5
H/TOT	0	1	8	0	1	0	0	0	10	9.4	1	2	314	14	37	11	7	1	387	400.6	1	4	394	21	43	14	17	10	504	539.9	0	0	65	2	5	2	0	0	74	75	0	0	3	0	0	0	0	0	3	3	0	1	310	6	19	3	0	0	339	339.9
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15:30	0	0	1	0	0	0	0	0	1	1	0	0	92	3	7	2	2	0	106	109.6	2	1	112	13	9	5	4	2	148	155.5	0	0	16	1	5	1	0	0	23	23.5	0	0	2	0	0	0	0	0	2	2	0	0	58	1	8	1	0	1	69	70.5
15:45	0	0	1	0	0	0	0	0	1	1	2	1	79	3	16	2	0	1	104	103.8	0	3	98	3	11	4	1	2	122	125.5	0	0	17	1	1	0	0	1	20	21	0	0	3	0	0	0	0	0	3	3	0	0	83	1	12	0	0	1	97	98
H/TOT	0	0	7	0	0	0	0	0	7	7	2	1	344	12	31	10	2	1	403	409.4	2	4	440	29	47	12	14	9	557	586.2	0	0	79	3	8	1	0	1	92	93.5	0	0	8	0	0	0	0	0	8	8	0	1	288	4	35	4	1	2	335	339.7
16:00	0	0	0	0	0	0	0	0	0	0	0	2	115	2	9	1	0	0	129	128.3	0	1	125	9	10	2	2	2	151	156	0	0	24	0	1	0	0	0	25	25	0	0	1	0	0	0	0	0	1	1	0	0	96	2	7	2	0	0	107	108
16:15	0	0	3	0	0	0	0	0	3	3	0	1	100	7	11	2	0	0	121	121.4	0	0	114	8	13	5	6	2	148	160.3	0	1	12	0	2	0	1	0	16	16.7	0	0	2	0	1	0	0	0	3	3	0	0	102	0	8	1	0	0	111	111.5
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16:45	0	0	4	0	0	0	0	0	4	4	0	0	107	5	12	1	0	0	125	125.5	2	1	133	9	16	3	3	2	169	174.2	0	0	15	0	3	0	0	0	18	18	0	0	4	0	1	0	0	0	5	5	0	1	88	1	9	0	0	0	99	98.4
H/TOT	0	0	9	0	0	1	0	0	10	10.5	0	3	437	18	41	4	0	0	503	503.2	2	5	493	40	51	15	15	10	631	663.4	0	2	67	0	7	1	1	0	78	78.6	0	0	8	0	2	0	0	0	10	10	0	1	383	7	29	3	0	0	423	423.9
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17:15	0	0	2	0	0	0	0	0	2	2	0	1	91	5	6	2	1	0	106	107.7	0	0	136	5	13	0	3	4	161	168.9	0	0	23	0	1	1	0	0	25	25.5	0	0	4	0	0	0	0	0	4	4	0	0	91	3	4	2	1	1	102	105.3
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H/TOT	0	0	10	0	0	0	0	0	10	10	0	3	412	18	29	7	1	0	470	473	2	5	551	32	57	9	8	11	675	696.3	0	0	89	2	3	1	0	0	95	95.5	0	0	9	0	0	0	0	0	9	9	0	4	340	5	14	5	2	1	371	374.7
18:00	0	0	6	0	0	0	0	0	6	6	0	1	78	1	3	0	0	1	84	84.4	1	1	103	5	4	1	2	3	120	124.7	0	0	25	0	0	0	0	0	25	25	0	0	1	0	0	0	0	0	1	1	1	1	69	3	4	0	0	0	78	76.6
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H/TOT	0	0	13	1	0	0	0	0	14	14	0	1	350	7	18	4	1	1	382	385.7	2	1	425	23	24	5	5	14	499	519.8	0	0	77	1	1	0	0	0	79	79	0	0	2	0	0	0	0	0	2	2	2	2	282	8	13	1	2	2	312	314.3
12 TOT	0	1	106	5	3	5	0	0	120	121.9	4	25	4371	133	435	107	54	8	5137	5251	33	36	5200	349	558	142	165	126	6609	6973	1	2	786	13	62	10	1	4	879	887.3	0	0	58	1	6	0	0	0	65	65	3	19	3586	89	305	50	22	14	4088	4142

B => B											B => C										B => D										B => E										C => A										C => B											
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	4.8	0	1	16	1	2	1	0	0	21	20.9	0	0	0	0	0	0	0	0	0	0	0	1	49	4	6	1	1	7	69	77.2	1	0	3	0	0	0	0	1	5	5.2	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2.3	1	0	24	0	10	0	0	0	35	34.2	0	0	0	0	0	0	0	0	0	0	0	0	63	2	8	0	2	10	85	97.6	0	1	0	3	2	0	0	1	7	7.4	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	0	1	0	6	7.3	0	0	43	3	3	1	0	0	50	50.5	0	0	0	0	0	0	0	0	0	0	1	1	77	4	13	3	2	4	105	111.7	1	0	2	5	1	0	1	0	10	10.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	46	1	9	2	0	0	58	59	0	0	0	0	0	0	0	0	0	0	0	0	75	4	10	4	3	0	96	101.9	0	0	0	0	0	1	0	1	2	3.5	0	0
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0	0	1	0	0	0	0	0	1	1	0	0	13	1	4	2	1	1	22	25.3	3	0	181	8	25	8	0	0	225	226.6	0	0	0	0	0	0	0	0	0	0	2	3	344	23	46	18	10	8	454	480.6	1	0	5	5	2	3	3	3	22	29.6	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	6	6	0	0	68	0	8	1	0	0	77	77.5	0	0	0	0	0	0	0	0	0	0	1	0	123	3	5	3	1	2	138	142	0	0	2	4	4	0	0	0	10	10	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	24	2	3	0	1	0	30	31.3	1	1	229	4	25	3	0	0	263	263.1	0	0	0	0	0	0	0	0	0	0	1	2	425	28	31	12	9	6	514	535.7	0	0	13	6	7	3	2	4	35	43.1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	4	0	1	49	1	15	1	0	1	68	68.9	0	0	0	0	0	0	0	0	0	0	0	2	100	5	15	5	2	4	133	140.9	1	0	4	5	0	2	1	1	14	16.5	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	32	4	5	2	3	0	46	50.9	0	3	225	9	30	2	0	2	271	272.2	0	0	3	0	0	0	0	0	3	3	0	10	424	21	52	14	8	7	536	554.4	1	0	17	16	0	2	2	2	40	44.8	0	0
0	0	0	0	0	0	0	0	0	0	0	0	11	2	3	0	0	0	16	16	1	0	57	4	3	1	0	0	66	65.7	0	0	0	0	0	0	0	0	0	0	1	0	102	7	6	2	2	3	123	128.8	0	0	4	1	1	0	0	1	7	8	0	0
0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5	0	0	46	4	9	1	0	0	60	60.5	0	0	0	0	0	0	0	0	0	0	0	0	109	6	7	2	3	2	129	135.9	0	0	8	5	3	0	0	0	16	16	0	0
0	0	0	0	0	0	0	0	0	0	0	0	7	1	2	1	0	0	11	11.5	0	0	56	4	5	2	0	0	67	68	0	0	0	0	0	0	0	0	0	0	0	1	148	13	13	4	5	6	190	203.9	0	0	2	1	1	1	0	1	6	7.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	2	0	9	11.6	0	0	60	4	6	0	0	0	70	70	0	0	0	0	0	0	0	0	0	0	0	1	95	5	14	3	4	2	124	132.1	0	0	4	6	1	0	0	0	11	11	0	0
0	0	0	0	0	0	0	0	0	0	0	0	28	4	6	1	2	0	41	44.1	1	0	219	16	23	4	0	0	263	264.2	0	0	0	0	0	0	0	0	0	0	1	2	454	31	40	11	14	13	566	600.7	0	0	18	13	6	1	0	2	40	42.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	57	4	3	1	0	0	65	65.5	0	0	0	0	1	0	0	0	1	1	0	0	102	7	13	2	2	2	128	133.6	0	0	4	6	0	0	0	1	11	12	0	0
0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5	5	0	0	55	2	3	1	0	1	62	63.5	0	0	0	0	0	0	0	0	0	0	1	2	107	10	9	0	2	3	134	137.6	0	0	6	3	1	1	0	1	12	13.5	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	1	0	14	15.3	0	4	204	7	19	2	0	2	238	238.6	0	0	1	0	1	0	0	0	2	2	4	3	486	24	47	7	8	7	586	601.9	0	0	27	14	7	1	1	2	52	55.8	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	21	0	2	0	0	0	23	23	0	2	62	2	1	2	0	0	69	68.8	0	0	0	0	0	0	0	0	0	0	3	1	145	8	10	0	4	2	173	177.2	1	0	4	3	2	1	0	1	12	12.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	24	3	1	0	0	1	29	30	0	1	68	2	5	0	0	0	76	75.4	0	0	1	0	0	0	0	0	1	1	1	0	147	12	13	1	1	5	180	186	0	2	6	3	1	1	0	0	13	12.3	0	0
0	0	0	0	0	0	0	0	0	0	0	0	36	2	2	0	0	0	40	40	0	0	66	3	1	0	0	0	70	70	0	0	0	0	1	0	0	0	1	1	0	1	131	3	10	0	3	1	149	153.3	0	1	7	7	1	0	1	0	17	17.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	86	6	5	0	0	1	98	99	0	6	260	9	10	2	0	0	287	284.4	0	0	2	0	1	0	0	0	3	3	6	3	553	28	42	2	12	11	657	678	1	3	23	13	4	2	1	2	49	50.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	28	2	1	0	1	1	33	35.3	0	1	60	1	5	1	0	0	68	67.9	0	0	1	0	0	0	0	0	1	1	3	0	132	6	10	1	2	4	158	162.7	3	1	8	5	0	0	1	0	18	16.3	0	0
0	0	0	0	0	0	0	0	0	0	0	0	33	1	1	0	1	1	37	39.3	0	0	55	0	6	0	0	0	61	61	0	0	0	0	0	0	0	0	0	0	5	2	105	2	2	0	0	2	118	114.8	1	1	8	2	0	0	0	0	12	10.6	0	0
0	0	0	0	0	0	0	0	0	0	0	0	29	0	1	0	0	0	30	30	0	0	83	0	5	0	0	0	88	88	0	0	1	0	0	0	0	0	1	1	1	0	106	2	6	0	1	4	120	124.5	0	0	9	2	1	0	0	0	12	12	0	0
0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	1	1	59	3	5	0	0	0	69	67.6	0	0	0	0	0	0	0	0	0	0	0	0	116	1	9	0	1	1	128	130.3	1	0	4	3	3	0	0	0	11	10.2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	94	3	3	0	2	2	104	108.6	1	2	257	4	21	1	0	0	286	284.5	0	0	2	0	0	0	0	0	2	2	9	2	459	11	27	1	4	11	524	532.3	5	2	29	12	4	0	1	0	53	49.1	0	0
0	0	1	0	1	1	0	0	3	3.5	0	0	339	32	32	12	18	5	438	472.4	11	19	2377	84	238	38	2	8	2777	2786	0	0	12	0	4	0	0	0	16	16	32	28	4897	279	490	111	121	122	6080	6372	11	7	190	96	68	17	17	26	432	475.6	0	0

C => C								C => D									
CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	1	0	12	4	1	1	0	1	20	20.7
0	0	0	0	0	0	0	0	1	0	20	4	1	1	0	1	28	28.7
0	0	0	0	1	0	1	2.3	1	0	18	3	3	2	0	2	29	31.2
1	0	0	0	0	0	1	1	2	0	23	2	3	1	0	3	34	35.9
1	0	0	0	1	0	2	3.3	5	0	73	13	8	5	0	7	111	116.5
2	0	0	0	0	0	2	2	1	0	17	1	1	2	0	3	25	28.2
1	0	0	0	0	0	1	1	0	1	22	5	2	0	1	0	31	31.7
1	0	0	0	0	0	1	1	1	0	35	1	1	2	0	1	41	42.2
0	0	0	0	0	0	0	0	0	0	39	7	3	0	0	1	50	51
4	0	0	0	0	0	4	4	2	1	113	14	7	4	1	5	147	153.1
0	0	0	0	1	0	1	2.3	4	0	30	5	4	0	0	0	43	39.8
1	0	0	0	0	1	2	3	0	0	33	6	9	0	0	0	48	48
1	0	0	0	0	1	2	3	2	0	25	6	4	1	0	1	39	38.9
0	0	0	0	0	0	0	0	1	0	26	1	5	0	0	1	34	34.2
2	0	0	0	1	2	5	8.3	7	0	114	18	22	1	0	2	164	160.9
0	0	0	0	0	1	1	2	0	0	29	3	3	1	0	0	36	36.5
1	0	0	1	0	0	2	2.5	1	0	34	3	1	0	0	0	39	38.2
0	0	0	0	0	0	0	0	0	0	26	4	5	2	0	1	38	40
2	0	0	0	0	0	2	2	0	1	30	5	3	1	0	1	41	41.9
3	0	0	1	0	1	5	6.5	1	1	119	15	12	4	0	2	154	156.6
0	0	0	0	1	0	1	2.3	0	0	34	4	0	0	0	0	38	38
0	0	0	0	0	0	0	0	2	0	42	7	6	1	1	1	60	61.2
2	0	0	0	0	0	2	2	0	0	32	2	2	2	0	0	38	39
2	0	0	1	0	1	4	5.5	0	0	42	5	3	3	0	1	54	56.5
4	0	0	1	1	1	7	9.8	2	0	150	18	11	6	1	2	190	194.7
0	0	0	0	0	0	0	0	0	0	48	2	2	1	0	0	53	53.5
0	0	0	0	0	0	0	0	1	1	39	5	4	1	0	1	52	52.1
1	0	0	0	0	0	1	1	2	2	46	8	0	0	0	0	58	55.2
1	0	0	0	0	0	1	1	0	0	49	3	3	1	0	1	57	58.5
2	0	0	0	0	0	2	2	3	3	182	18	9	3	0	2	220	219.3
0	0	0	0	0	0	0	0	0	0	36	1	1	1	0	1	40	41.5
1	0	0	0	0	0	1	1	1	0	47	5	3	2	0	1	59	60.2
0	0	0	1	0	0	1	1.5	0	0	50	7	3	0	0	0	60	60
1	0	0	0	1	0	2	3.3	2	0	40	5	4	1	0	0	52	50.9
2	0	0	1	1	0	4	5.8	3	0	173	18	11	4	0	2	211	212.6
0	0	0	1	0	0	1	1.5	0	0	29	2	4	3	0	1	39	41.5
1	0	0	0	0	0	1	1	1	1	42	5	2	0	0	0	51	49.6
0	0	0	0	0	0	0	0	0	0	36	4	1	1	0	2	44	46.5
2	0	0	0	0	0	2	2	1	0	57	1	3	1	0	0	63	62.7
3	0	0	1	0	0	4	4.5	2	1	164	12	10	5	0	3	197	200.3
0	0	0	1	0	2	3	5.5	0	0	34	6	4	3	0	1	48	50.5
2	0	0	1	0	1	4	5.5	0	0	42	2	2	3	0	0	49	50.5
2	0	0	0	0	0	2	2	0	0	48	7	5	0	0	1	61	62
1	0	0	0	0	0	1	1	2	0	44	6	6	0	0	1	59	58.4
5	0	0	2	0	3	10	14	2	0	168	21	17	6	0	3	217	221.4
0	0	0	0	0	0	0	0	1	1	37	2	2	1	0	1	45	45.1
1	0	0	0	0	0	1	1	0	1	45	4	4	0	0	0	54	53.4
2	0	0	0	0	0	2	2	1	0	37	5	2	1	0	0	46	45.7

C => E										D => A									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	1	0	5	6.3
0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	7	8.3
0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	1	0	6	6.7
0	0	0	0	0	0	0	0	0	0	0	1	18	0	2	0	3	0	24	27.3
0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	1	9	10
0	0	0	0	0	0	0	0	0	0	0	0	15	0	1	0	0	0	16	16
0	0	2	0	0	0	0	0	2	2	0	0	32	1	1	0	0	0	34	34
0	0	0	0	0	0	0	0	0	0	0	0	24	1	2	0	0	0	27	27
0	0	2	0	0	0	0	0	2	2	0	0	78	2	5	0	0	1	86	87
0	0	2	0	0	0	0	0	2	2	0	0	13	0	1	0	0	0	14	14
0	0	1	0	0	0	0	0	1	1	0	0	24	0	1	0	0	0	25	25
0	0	0	0	0	0	0	0	0	0	0	0	23	0	1	0	1	0	25	26.3
0	0	0	0	0	0	0	0	0	0	0	0	16	0	1	0	0	0	17	17
0	0	3	0	0	0	0	0	3	3	0	0	76	0	4	0	1	0	81	82.3
0	0	0	0	0	0	0	0	0	0	0	0	14	1	2	0	0	0	17	17
0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	12
0	0	0	0	0	0	0	0	0	0	0	0	17	0	2	1	0	0	20	20.5
0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	17	17
0	0	0	0	0	0	0	0	0	0	0	0	60	1	4	1	0	0	66	66.5
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0	0	0	0	0	0	0	0	0	0	0	0	18	0	1	3	0	0	22	23.5
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0	0	2	0	0	0	0	0	2	2	0	0	31	0	2	1	1	0	35	36.8
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0	0	0	0	0	0	0	0	0	0	0	0	26	0	2	0	0	0	28	28
0	0	0	0	0	0	0	0	0	0	0	0	20	0	3	1	0	0	24	24.5
0	0	0	0	0	0	0	0	0	0	0	0	29	2	3	0	0	0	34	34
0	0	2	0	0	0	0	0	2	2	0	0	18	1	2	0	0	0	21	21
0	0	2	0	0	0	0	0	2	2	0	0	93	3	10	1	0	0	107	107.5
0	0	0	0	0	0	0	0	0	0	0	2	25	0	0	0	0	0	27	25.8
0	0	0	0	0	0	0	0	0	0	0	0	25	0	2	0	0	0	27	27
0	0	1	0	0	0	0	0	1	1	0	0	19	0	0	0	0	0	19	19
0	0	0	0	0	0	0	0	0	0	0	0	32	0	4	0	0	0	36	36
0	0	1	0	0	0	0	0	1	1	0	2	101	0	6	0	0	0	109	107.8
0	0	0	0	0	0	0	0	0	0	0	0	24	2	2	1	0	0	29	29.5
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0	0	0	0	0	0	0	0	0	0	0	0	27	1	3	0	0	0	31	31
0	0	1	0	0	0	0	0	1	1	0	0	104	4	8	1	0	0	117	117.5
0	0	0	0	0	0	0	0	0	0	0	0	15	0	1	0	0	0	16	16
0	0	0	0	0	0	0	0	0	0	0	0	22	2	2	1	0	0	27	27.5
0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	1	0	0	24	24.5
0	0	0	0	0	0	0	0	0	0	0	0	46	1	2	0	0	1	50	51
0	0	0	0	0	0	0	0	0	0	0	0	106	3	5	2	0	1	117	119
0	0	1	0	0	0	0	0	1	1	0	0	37	0	2	0	0	0	39	39
0	0	0	0	0	0	0	0	0	0	0	0	20	0	4	0	0	0	24	24
0	0	0	0	0	0	0	0	0	0	0	1	27	3	1	1	0	0	33	32.9

D => B										D => C										D =			
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI
0	1	49	0	6	1	0	0	57	56.9	0	0	16	1	4	3	0	4	28	33.5	0	0	0	0
0	0	55	3	5	0	0	0	63	63	0	0	33	0	3	2	0	2	40	43	0	0	0	0
0	0	55	0	3	0	0	1	59	60	2	1	30	3	7	0	0	1	44	42.8	0	0	0	0
0	0	72	0	3	1	0	0	76	76.5	2	3	31	3	13	0	1	3	56	56.9	0	0	0	0
0	1	231	3	17	2	0	1	255	256.4	4	4	110	7	27	5	1	10	168	176.2	0	0	0	0
0	2	52	0	4	0	0	0	58	56.8	1	1	48	3	1	0	0	1	55	54.6	0	0	0	0
0	1	57	3	1	0	0	0	62	61.4	4	1	36	0	5	3	0	2	51	50.7	0	0	1	0
1	2	35	0	2	0	0	1	41	40	0	0	46	3	4	2	0	2	57	60	0	0	0	0
0	0	58	0	2	1	0	0	61	61.5	0	0	39	5	2	0	0	1	47	48	0	0	1	0
1	5	202	3	9	1	0	1	222	219.7	5	2	169	11	12	5	0	6	210	213.3	0	0	2	0
1	0	44	5	0	2	0	0	52	52.2	0	0	51	0	5	1	0	1	58	59.5	0	0	0	0
2	1	56	3	3	4	1	0	70	71.1	0	1	42	3	3	0	0	1	50	50.4	0	0	0	0
0	0	37	2	0	0	0	1	40	41	0	0	40	3	4	0	0	0	47	47	0	0	1	0
0	0	31	6	6	1	0	0	44	44.5	1	0	35	0	6	1	0	2	45	46.7	0	0	0	0
3	1	168	16	9	7	1	1	206	208.8	1	1	168	6	18	2	0	4	200	203.6	0	0	1	0
1	0	32	5	4	0	0	0	42	41.2	0	1	36	1	1	2	0	1	42	43.4	0	0	0	0
0	0	22	4	7	0	0	0	33	33	0	0	37	0	0	0	0	0	37	37	0	0	0	0
0	0	15	2	4	0	0	0	21	21	0	0	58	5	3	0	1	0	67	68.3	0	0	1	0
1	0	38	5	3	0	1	0	48	48.5	0	0	38	1	0	0	0	2	41	43	0	0	2	0
2	0	107	16	18	0	1	0	144	143.7	0	1	169	7	4	2	1	3	187	191.7	0	0	3	0
0	0	28	0	1	0	0	0	29	29	0	0	32	9	6	0	0	0	47	47	0	0	0	0
0	0	37	2	0	0	0	0	39	39	2	0	36	4	4	1	0	1	48	47.9	0	0	0	0
0	0	44	1	5	0	0	0	50	50	0	1	30	3	3	1	0	1	39	39.9	0	0	0	0
1	0	38	0	2	0	0	0	41	40.2	0	1	38	1	2	2	0	0	44	44.4	0	0	1	0
1	0	147	3	8	0	0	0	159	158.2	2	2	136	17	15	4	0	2	178	179.2	0	0	1	0
0	0	41	1	3	0	0	0	45	45	0	0	16	2	4	3	0	0	25	26.5	0	0	2	0
0	0	39	2	5	0	0	0	46	46	0	0	38	2	5	2	1	2	50	54.3	0	0	1	0
0	1	41	6	5	0	0	0	53	52.4	0	0	30	3	4	0	0	1	38	39	0	0	0	0
0	1	37	1	4	0	0	0	43	42.4	0	0	30	6	5	2	0	1	44	46	0	0	2	0
0	2	158	10	17	0	0	0	187	185.8	0	0	114	13	18	7	1	4	157	165.8	0	0	5	0
0	0	41	2	3	1	0	0	47	47.5	0	0	41	1	4	0	0	1	47	48	0	0	0	0
0	0	38	0	3	1	0	0	42	42.5	0	1	39	5	5	0	0	0	50	49.4	0	0	2	0
0	0	46	1	7	0	0	0	54	54	0	0	37	5	7	1	0	1	51	52.5	0	0	1	0
0	0	47	0	3	0	0	0	50	50	0	1	46	5	7	0	0	1	60	60.4	0	0	2	0
0	0	172	3	16	2	0	0	193	194	0	2	163	16	23	1	0	3	208	210.3	0	0	5	0
0	0	43	1	6	1	0	0	51	51.5	0	0	40	4	2	1	0	2	49	51.5	0	0	0	0
1	0	20	0	4	0	0	0	25	24.2	0	0	58	5	6	4	0	3	76	81	0	0	2	0
2	0	28	0	0	0	0	0	30	28.4	0	0	32	4	5	1	0	1	43	44.5	0	0	1	0
0	1	41	1	6	0	0	0	49	48.4	0	0	34	5	4	0	0	0	43	43	0	0	0	0
3	1	132	2	16	1	0	0	155	152.5	0	0	164	18	17	6	0	6	211	220	0	0	3	0
0	0	46	3	5	1	0	0	55	55.5	0	0	33	3	5	0	0	1	42	43	0	0	1	0
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0	0	33	1	11	1	0	0	46	46.5	0	0	21	1	0	0	0	0	22	22	0	0	0	0
0	0	49	1	9	0	2	0	61	63.6	0	0	52	5	2	0	0	2	61	63	0	0	0	0
0	0	164	5	32	2	2	0	205	208.6	0	0	142	14	8	1	0	3	168	171.5	0	0	2	0
0	0	44	1	5	0	0	0	50	50	0	0	41	6	4	0	0	1	52	53	0	0	1	0
1	0	34	1	7	1	0	0	44	43.7	1	0	41	1	1	0	0	1	45	45.2	0	0	1	0
0	0	37	3	4	1	0	1	46	47.5	1	0	28	5	4	3	0	0	41	41.7	0	0	1	0

0	0	0	0	0	0	0	0	3	1	64	7	2	1	0	2	80	79.5	0	0	0	0	0	0	0	0	0	0	0	0	26	2	3	0	0	0	31	31	0	0	28	0	4	1	0	0	33	33.5	1	0	41	3	3	0	0	1	49	49.2	0	0	0	0
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1	0	0	1	0	0	2	2.5	1	0	44	3	3	1	0	0	52	51.7	0	0	2	0	0	0	0	0	2	2	0	0	23	1	0	0	0	0	24	24	0	0	37	1	5	0	0	0	43	43	1	0	31	2	0	0	0	0	34	33.2	0	0	0	0
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2	0	0	1	0	0	3	3.5	0	1	27	3	4	0	0	1	36	36.4	0	0	0	0	0	0	0	0	0	0	0	0	29	0	5	0	0	0	34	34	1	0	34	0	1	0	0	1	37	37.2	2	0	35	8	2	1	0	0	48	46.9	0	0	1	0
1	0	0	1	0	0	2	2.5	0	2	43	2	2	0	0	0	49	47.8	0	0	2	0	0	0	0	0	2	2	0	0	30	0	1	1	0	0	32	32.5	0	1	30	2	3	0	0	0	36	35.4	0	2	42	3	3	0	0	1	51	50.8	0	0	0	0
4	0	0	5	0	0	9	11.5	1	4	160	11	13	1	0	3	193	193.3	0	0	4	0	0	0	0	0	4	4	0	0	102	1	6	1	0	0	110	110.5	1	1	144	3	11	0	0	1	161	160.6	3	3	130	20	9	2	0	3	170	169.8	0	0	1	0
0	0	0	0	0	0	0	0	2	0	40	5	2	1	0	2	52	52.9	0	0	0	0	0	0	0	0	0	0	0	0	22	1	1	0	0	0	24	24	0	0	41	2	2	0	1	1	47	49.3	1	0	35	5	0	0	0	0	41	40.2	0	0	0	0
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1	0	0	0	0	0	1	1	0	0	47	2	1	0	0	1	51	52	0	0	0	0	0	0	0	0	0	0	0	0	18	1	1	0	0	0	20	20	0	0	39	1	4	1	0	0	45	45.5	0	0	41	6	4	0	0	0	51	51	0	0	0	0
0	0	0	0	0	0	0	0	0	0	31	2	2	0	0	1	36	37	0	0	0	0	0	0	0	0	0	0	0	1	23	2	1	0	0	0	27	26.4	0	0	51	0	0	0	0	0	51	51	0	0	33	11	3	0	0	1	48	49	0	0	0	0
3	0	0	0	0	0	3	3	3	1	167	13	8	1	0	5	198	200.5	0	0	2	0	0	0	0	0	2	2	0	1	83	4	3	0	0	0	91	90.4	0	0	159	5	7	1	2	2	176	181.1	1	0	149	25	10	0	0	2	187	188.2	0	0	0	0
36	0	0	11	4	7	58	75.7	36	14	1766	189	138	43	2	39	2227	2253	0	0	18	0	0	0	0	0	18	18	0	5	1008	23	66	13	5	2	1122	1134	12	11	1927	74	180	19	6	7	2236	2244	19	15	1765	169	173	38	3	49	2231	2279	0	0	26	0

> D						D => E										E => A										E => B										E => C										E => D										E => E					
LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1
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OGV2	PSV	TOT	PCU
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0	0	0	0
0	0	0	0

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0	0	0	0
0	0	0	0
0	0	0	0
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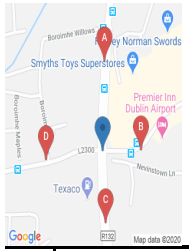

IDASO

Survey Name: 041 20064 Swords

Site: Site 3

Location: R132/L2305 Nevinstown Lane/L2300

Date: Thu 27-Feb-2020

	A => A										A => B										A => C										A => D										B => A										B => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	102	6	5	0	0	1	114	115	3	1	363	22	18	5	5	12	429	447	1	1	211	2	11	0	0	1	227	226.6	0	0	91	3	5	0	0	2	101	103	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	0	8	1	925	40	61	2	4	23	1064	1086	45	36	4510	372	542	173	178	150	6006	6416	3	9	1765	55	156	22	5	5	2020	2035	3	0	858	41	60	9	1	16	988	1007	0	0	0	0	0	0	0	0	0	0

B => C										B => D										C => A										C => B										C => C										C => D											
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
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D => A									D => B										D => C										D => D									
CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
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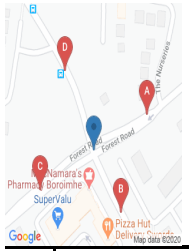

IDASO

Survey Name: 041 20064 Swords

Site: Site 4

Location: Fores Road/Rathingle Road/L2300

Date: Thu 27-Feb-2020

	A => A										A => B										A => C										A => D										B => A										B => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
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H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	69	3	7	4	0	2	86	89.2	0	1	65	3	6	1	0	0	76	75.9	0	0	13	1	0	0	0	1	15	16	1	0	49	1	2	3	0	2	58	60.7	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	83	5	6	0	0	2	98	98.4	0	0	85	1	5	0	0	0	91	91	0	0	9	1	0	0	0	0	10	10	0	0	68	1	3	0	0	14	86	100	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	0	5	5	879	52	81	12	0	39	1073	1111	8	3	835	37	83	7	0	0	973	968.3	3	0	114	8	5	1	0	1	132	131.1	3	9	611	28	49	8	0	40	748	784.2	0	0	0	1	0	0	0	0	1	1

B => C										B => D										C => A										C => B										C => C										C => D											
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
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D => A								D => B									D => C									D => D									
CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	1	0	0	0	0	1	1	2	1	34	0	4	0	0	1	42	40.8	0	0	11	1	3	1	0	1	17	18.5	0	0	0	0	0	0	0	0	0	0
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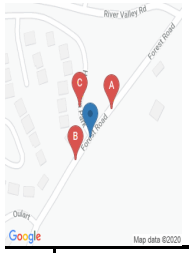
181	6	18	1	0	0	211	207.7	23	13	2243	102	154	16	12	52	2615	2664	1	1	1003	35	74	11	2	25	1152	1184	0	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 041 20064 Swords
Site: Site 5
Location: Forest Road/Hawthorn Park
Date: Thu 27-Feb-2020

	A => A										A => B										A => C										B => A										B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	21	1	4	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
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07:30	0	0	0	0	0	0	0	0	0	0	0	0	33	0	6	0	0	1	40	41	0	0	0	0	0	0	0	0	0	0	0	0	16	1	1	0	0	1	19	20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	3.5
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	112	2	15	1	0	6	136	142.5	0	0	0	0	0	0	0	0	0	0	1	0	57	2	6	0	0	2	68	69.2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	0	6	6.5
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	168	9	13	2	0	7	200	207.4	0	0	8	1	0	0	0	0	9	9	14	0	160	7	9	2	0	1	193	183.8	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	94	5	8	1	0	2	111	112.9	0	0	9	0	1	0	0	0	10	10	4	0	84	6	9	1	0	3	107	107.3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	132	6	11	4	0	2	155	159	0	0	1	0	1	0	0	0	2	2	0	0	116	5	13	0	0	2	136	138	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
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H/TOT	0	0	0	0	0	0	0	0	0	0	9	1	140	11	15	0	0	2	178	172.2	0	0	13	1	0	0	0	0	14	14	0	0	121	4	19	2	0	2	148	151	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	12
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	141	12	14	1	0	2	170	172.5	0	1	8	0	0	0	0	0	9	8.4	2	1	166	6	26	2	0	6	209	213.8	0	0	0	0	0	0	0	0	0	0	0	1	20	1	1	0	0	0	23	22.4
17:00	0	0	0	0	0	0	0	0	0	0	1	0	45	2	4	1	0	2	55	56.7	0	0	5	0	0	0	0	0	5	5	0	0	36	1	3	0	0	2	42	44	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	1.4
17:15	0	0	0	0	0	0	0	0	0	0	0	0	26	0	6	0	0	0	32	32	0	0	6	0	0	0	0	0	6	6	0	2	56	0	3	0	0	0	61	59.8	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	0	0	0	0	25	2	1	0	0	1	29	30	0	0	2	0	1	0	0	0	3	3	0	1	46	2	6	0	0	0	55	54.4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	45	2	7	0	0	0	54	54	0	1	3	0	0	0	0	0	4	3.4	0	1	57	0	2	0	0	1	61	61.4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	141	6	18	1	0	3	170	172.7	0	1	16	0	1	0	0	0	18	17.4	0	4	195	3	14	0	0	3	219	219.6	0	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	0	0	11	10.4
18:00	0	0	0	0	0	0	0	0	0	0	0	0	41	3	3	0	0	1	48	49	0	0	2	0	0	0	0	0	2	2	0	1	36	3	3	0	0	1	44	44.4	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
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18:45	0	0	0	0	0	0	0	0	0	0	0	0	33	1	1	0	0	1	36	37	0	0	2	0	0	0	0	0	2	2	0	0	26	0	2	0	0	6	34	40	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	160	6	9	0	0	2	177	179	0	0	12	0	0	0	0	0	12	12	0	1	145	4	9	0	0	14	173	186.4	0	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	0	13	13
12 TOT	0	0	0	0	1	0	0	0	1	1	12	5	1579	84	142	16	0	41	1879	1915	0	2	94	3	8	0	0	0	107	105.8	26	8	1445	62	148	11	0	41	1741	1762	0	0	0	0	1	0	0	0	1	1	0	2	89	5	9	1	0	0	106	105.3

C => A										C => B										C => C									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	1	0	0	0	0	0	1	1	0	0	3	1	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	0	2	2	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
0	1	3	0	1	1	0	0	6	5.9	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
0	1	6	0	1	1	0	0	9	8.9	0	0	16	2	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
0	0	5	0	0	0	0	0	5	5	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	0	3	3	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	0	0	2	2	0	2	4	0	0	0	0	0	6	4.8	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	1	1	0	1	3	1	0	0	0	0	5	4.4	0	0	0	0	0	0	0	0	0	0
0	0	10	0	1	0	0	0	11	11	0	3	15	1	0	0	0	0	19	17.2	0	0	0	0	0	0	0	0	0	0
0	0	10	0	0	0	0	0	10	10	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
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0	0	2	0	1	0	0	0	3	3	0	0	1	1	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
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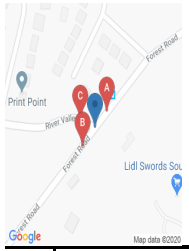
0	0	13	0	0	0	0	0	13	13	0	0	6	0	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	1	103	2	6	1	0	0	113	112.9	0	3	99	4	10	0	0	0	116	114.2	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 041 20064 Swords
Site: Site 6
Location: Forest Road/River Valley Road
Date: Thu 27-Feb-2020

	A => A										A => B										A => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	1	0	7	1	3	0	0	0	12	11.2	0	0	9	1	1	0	0	2	13	15
07:15	0	0	0	0	0	0	0	0	0	0	0	0	9	1	2	0	0	3	15	18	0	0	5	1	1	0	0	3	10	13
07:30	0	0	0	0	0	0	0	0	0	0	0	0	18	0	1	0	0	1	20	21	1	0	9	0	2	0	0	2	14	15.2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	18	0	3	0	0	2	23	25	0	0	18	1	2	1	1	2	25	28.8
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	52	2	9	0	0	6	70	75.2	1	0	41	3	6	1	1	9	62	72
08:00	0	0	0	0	0	0	0	0	0	0	0	0	14	2	3	0	0	3	22	25	0	0	27	1	0	2	0	2	32	35
08:15	0	0	0	0	0	0	0	0	0	0	0	0	14	1	1	0	0	2	18	20	0	0	57	2	1	0	0	4	64	68
08:30	0	0	0	0	0	0	0	0	0	0	0	1	18	0	3	0	0	1	23	23.4	0	0	85	2	2	0	0	3	92	95
08:45	0	0	0	0	0	0	0	0	0	0	0	0	19	3	2	1	0	1	26	27.5	0	0	76	2	3	1	0	2	84	86.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	65	6	9	1	0	7	89	95.9	0	0	245	7	6	3	0	11	272	284.5
09:00	0	0	0	0	0	0	0	0	0	0	0	0	17	3	7	0	0	2	29	31	1	0	23	1	3	1	0	2	31	32.7
09:15	0	0	0	0	0	0	0	0	0	0	0	0	17	1	3	0	0	3	24	27	0	0	30	2	2	0	0	0	34	34
09:30	0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	10	10	0	0	28	0	1	1	0	2	32	34.5
09:45	0	0	0	0	0	0	0	0	0	0	0	0	19	3	1	0	0	0	23	23	0	0	25	1	5	0	0	1	32	33
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	62	8	11	0	0	5	86	91	1	0	106	4	11	2	0	5	129	134.2
10:00	0	0	0	0	0	0	0	0	0	0	0	0	12	1	1	0	0	3	17	20	0	0	32	0	2	0	0	1	35	36
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10:30	0	0	0	0	0	0	0	0	0	0	1	0	20	0	2	0	0	1	24	24.2	0	0	28	0	1	0	0	2	31	33
10:45	0	0	0	0	0	0	0	0	0	0	0	0	22	0	2	1	0	0	25	25.5	0	0	20	1	5	0	0	2	28	30
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	77	2	6	1	0	4	91	94.7	0	0	98	1	8	0	0	6	113	119
11:00	0	0	0	0	0	0	0	0	0	0	0	0	22	0	3	0	0	0	25	25	0	0	14	1	4	0	0	1	20	21
11:15	0	0	0	0	0	0	0	0	0	0	0	1	16	1	0	0	0	0	18	17.4	1	0	27	0	2	2	0	2	34	36.2
11:30	0	0	0	0	0	0	0	0	0	0	1	0	17	1	1	1	0	1	22	22.7	0	0	32	0	3	0	0	1	36	37
11:45	0	0	0	0	0	0	0	0	0	0	0	0	22	1	2	0	0	0	25	25	0	0	27	1	2	0	0	1	31	32
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	77	3	6	1	0	1	90	90.1	1	0	100	2	11	2	0	5	121	126.2
12:00	0	0	0	0	0	0	0	0	0	0	0	0	21	2	1	0	0	1	25	26	0	0	32	3	1	1	0	1	38	39.5
12:15	0	0	0	0	0	0	0	0	0	0	1	0	23	4	1	0	0	0	29	28.2	0	0	33	1	1	0	0	1	36	37
12:30	0	0	0	0	0	0	0	0	0	0	0	0	24	0	2	0	0	1	27	28	1	0	26	3	1	0	0	2	33	34.2
12:45	0	0	0	0	0	0	0	0	0	0	0	0	20	2	1	0	0	0	23	23	1	0	29	0	3	0	0	0	33	32.2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	88	8	5	0	0	2	104	105.2	2	0	120	7	6	1	0	4	140	142.9
13:00	0	0	0	0	0	0	0	0	0	0	0	0	26	0	1	2	0	1	30	32	3	0	42	1	1	0	0	2	49	48.6
13:15	0	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	0	16	16	0	0	49	2	0	0	0	2	53	55
13:30	0	0	0	0	0	0	0	0	0	0	0	0	24	1	4	1	0	1	31	32.5	2	0	25	1	4	0	0	2	34	34.4
13:45	0	0	0	0	0	0	0	0	0	0	0	1	17	3	4	1	0	0	26	25.9	1	0	40	2	2	1	0	0	46	45.7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	82	5	9	4	0	2	103	106.4	6	0	156	6	7	1	0	6	182	183.7
14:00	0	0	0	0	0	0	0	0	0	0	0	0	21	2	4	1	0	1	29	30.5	0	0	32	1	3	0	0	1	37	38
14:15	0	0	0	0	0	0	0	0	0	0	0	0	15	2	0	1	0	0	18	18.5	0	0	55	2	1	0	0	1	59	60
14:30	0	0	0	0	0	0	0	0	0	0	1	1	26	3	1	0	0	1	33	32.6	0	0	30	1	0	0	0	2	33	35
14:45	0	0	0	0	0	0	0	0	0	0	0	0	22	0	1	2	0	0	25	26	2	1	31	0	1	0	0	5	40	42.8
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	84	7	6	4	0	2	105	107.6	2	1	148	4	5	0	0	9	169	175.8
15:00	0	0	0	0	0	0	0	0	0	0	1	0	29	1	1	0	0	1	33	33.2	1	0	42	0	1	0	0	0	44	43.2
15:15	0	0	0	0	0	0	0	0	0	0	0	0	19	3	1	0	0	0	23	23	1	0	40	0	3	0	0	1	45	45.2
15:30	0	0	0	0	0	0	0	0	0	0	3	0	23	0	4	0	0	1	31	29.6	1	0	28	1	2	0	0	2	34	35.2
15:45	0	0	0	0	0	0	0	0	0	0	11	1	39	7	3	0	0	0	61	51.6	10	1	40	2	2	1	0	2	58	51.9
H/TOT	0	0	0	0	0	0	0	0	0	0	15	1	110	11	9	0	0	2	148	137.4	13	1	150	3	8	1	0	5	181	175.5
16:00	0	0	0	0	0	0	0	0	0	0	1	0	35	1	6	0	0	1	44	44.2	0	0	29	5	2	0	0	0	36	36
16:15	0	0	0	0	0	0	0	0	0	0	0	1	25	4	5	0	0	0	35	34.4	1	0	41	1	3	0	1	1	48	49.5
16:30	0	0	0	0	0	0	0	0	0	0	0	0	24	4	1	0	0	0	29	29	0	0	40	1	3	1	0	2	47	49.5

	B => A										B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	5	0	2	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
07:15	0	0	12	0	1	0	0	1	14	15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
07:30	0	0	11	1	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	1	6	7
07:45	1	1	18	1	3	1	0	0	25	24.1	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
H/TOT	1	1	46	2	7	1	0	1	59	59.1	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	1	17	18
08:00	0	0	23	1	2	0	0	1	28	28.2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	1	0	0	8	8.5
08:15	0	0	32	1	1	0	0	0	41	35.4	0	0	0	0	0	0	0	0	0	0	0	0	10	1	1	0	0	0	12	12
08:30	0	0	17	0	0	0	0	0	21	17.8	0	0	0	0	0	0	0	0	0	0	0	0	26	1	2	0	0	0	29	29
08:45	0	0	24	2	3	0	0	0	34	30	0	0	0	0	0	0	0	0	0	0	0	0	29	1	1	1	0	0	32	32.5
H/TOT	0	0	96	4	6	0	0	1	124	111.4	0	0	0	0	0	0	0	0	0	0	0	0	72	3	4	2	0	0	81	82
09:00	0	0	21	2	0	0	0	1	24	25	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	0	13	13
09:15	0	0	24	0	0	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
09:30	0	0	14	2	2	1	0	0	20	19.7	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
09:45	0	0	8	2	5	0	0	1	16	17	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
H/TOT	1	0	67	6	7	1	0	2	84	85.7	0	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	0	0	29	29
10:00	0	0	16	1	3	0	0	1	21	22	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	7	7.5
10:15	0	0	15	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
10:30	0	0	10	1	3	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
10:45	0	1	17	2	0	1	0	0	21	20.9	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	4
H/TOT	0	1	58	4	6	1	0	1	71	71.9	0	0	0	0	0	0	0	0	0	0	0	0	19	0	2	1	0	0	22	22.5
11:00	0	0	13	0	2	1	0	1	17	18.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
11:15	2	0	18	2	2	0	0	0	24	22.4	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	7	7
11:30	1	0	21	0	3	0	0	1	26	26.2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
11:45	1	0	20	3	0	0	0	0	24	23.2	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
H/TOT	4	0	72	5	7	1	0	2	91	90.3	0	0	0	0	0	0	0	0	0	0	0	0	16	0	2	0	0	0	18	18
12:00	0	0	22	0	4	0	0	1	27	28	0	0	0	0	0	0	0	0	0	0	0	0	9	1	2	0	0	0	12	12
12:15	0	0	25	1	2	0	0	0	28	28	0	0	0	0	0	0	0	0	0	0	0	0	11	0	2	0	0	0	13	13
12:30	0	0	26	4	2	0	0	1	33	34	0	0	0	0	0	0	0	0	0	0	0	0	9	0	1	0	0	0	10	10
12:45	0	1	34	1	4	0	0	0	40	39.4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0	6	6
H/TOT	0	1	107	6	12	0	0	2	128	129.4	0	0	0	0	0	0	0	0	0	0	0	0	33	1	7	0	0	0	41	41
13:00	0	0	15	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	0	13	13
13:15	0	0	16	1	5	0	0	1	23	24	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	21
13:30	0	0	18	0	3	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10	10
13:45	0	0	21	2	4	0	0	1	28	29	0	0	0	0	0	0	0	0	0	0	0	0	14	0	2	0	0	0	16	16
H/TOT	0	0	70	3	12	0	0	2	87	89	0	0	0	0	0	0	0	0	0	0	0	0	57	0	3	0	0	0	60	60
14:00	2	0	15	0	2	0	0	0	19	17.4	0	0	0	0	0	0	0	0	0	0	0	0	7	1	2	0	0	0	10	10
14:15	0	0	19	0	0	0	0	2	21	23	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	1	0	0	24	24.5
14:30	1	0	20	2	0	0	0	0	23	22.2	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	0	0	0	12	12
14:45	1	0	18	1	5	0	0	1	26	26.2	0	0	0	0	0	0	0	0	0	0	0	0	12	0	2	0	0	0	14	14
H/TOT	4	0	72	3	7	0	0	3	89	88.8	0	0	0	0	0	0	0	0	0	0	0	0	53	1	5	1	0	0	60	60.5
15:00	0	0	24	1	2	1	0	0	28	28.5	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	7	7
15:15	0	0	17	0	1	0	0	1	19	20	0	0	0	0	0	0	0	0	0	0	0	0	13	0	1	0	0	0	14	14
15:30	0	0	19	1	1	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	14	0	1	0	0	0	15	15
15:45	0	0	37	2	13	0	0	1	53	54	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	0	9	9
H/TOT	0	0	97	4	17	1	0	2	121	123.5	0	0	0	0	0	0	0	0	0	0	0	0	41	0	4	0	0	0	45	45
16:00	0	1	26	0	3	0	0	1	31	31.4	0	0	0	0	0	0	0	0	0	0	0	0	10	0	5	0	0	0	15	15
16:15	2	0	27	3	4	0	0	2	38	38.4	0	0	0	0	0	0	0	0	0	0	0	0	15	0	1	0	0	0	16	16
16:30	0	0	26	2	7	0	0	1	36	37	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15	15

16:45	0	0	0	0	0	0	0	0	0	0	0	0	28	2	1	0	0	1	32	33
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	112	11	13	0	0	2	140	140.6
17:00	0	0	0	0	0	0	0	0	0	0	1	0	35	2	3	1	0	2	44	45.7
17:15	0	0	0	0	0	0	0	0	0	0	1	0	23	0	5	0	0	0	29	28.2
17:30	0	0	0	0	0	0	0	0	0	0	0	0	19	1	2	0	0	1	23	24
17:45	0	0	0	0	0	0	0	0	0	0	0	1	34	2	6	0	0	0	43	42.4
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	111	5	16	1	0	3	139	140.3
18:00	0	0	0	0	0	0	0	0	0	0	0	0	30	2	0	0	0	1	33	34
18:15	0	0	0	0	0	0	0	0	0	0	0	0	38	0	3	0	0	0	41	41
18:30	0	0	0	0	0	0	0	0	0	0	0	0	38	0	1	0	0	0	39	39
18:45	0	0	0	0	0	0	0	0	0	0	0	0	22	1	1	0	0	1	25	26
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	128	3	5	0	0	2	138	140
12 TOT	0	0	0	0	0	0	0	0	0	0	23	7	1048	71	104	12	0	38	1303	1324

16:45	0	0	44	0	2	0	0	0	46	46	0	0	32	1	6	1	0	2	42	44.5
H/TOT	1	0	154	7	10	1	1	3	177	181	2	1	111	6	20	1	0	6	147	151.3
17:00	1	0	40	0	6	0	0	2	49	50.2	0	0	29	2	3	0	0	2	36	38
17:15	1	0	35	2	1	0	0	1	40	40.2	0	1	41	0	2	0	0	0	44	43.4
17:30	1	0	51	0	3	0	0	1	56	56.2	0	0	31	2	2	0	0	0	35	35
17:45	0	0	49	4	2	1	0	1	57	58.5	0	1	35	0	1	0	0	1	38	38.4
H/TOT	3	0	175	6	12	1	0	5	202	205.1	0	2	136	4	8	0	0	3	153	154.8
18:00	1	0	41	1	2	0	0	2	47	48.2	0	1	23	3	0	0	0	1	28	28.4
18:15	0	0	46	0	3	0	0	1	50	51	1	0	31	0	2	0	0	2	36	37.2
18:30	0	0	39	2	1	0	0	1	43	44	0	0	30	1	2	0	0	5	38	43
18:45	0	0	41	2	0	0	0	2	45	47	0	0	15	1	2	0	0	6	24	30
H/TOT	1	0	167	5	6	0	0	6	185	190.2	1	1	99	5	6	0	0	14	126	138.6
12 TOT	31	2	1660	55	96	13	2	74	1933	1990	30	7	1031	52	115	6	0	39	1280	1294

16:45	0	0	0	0	0	0	0	0	0	0	0	0	16	1	2	1	0	0	20	20.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	56	1	8	1	0	0	66	66.5
17:00	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	11
17:15	0	0	0	0	0	0	0	0	0	0	0	1	15	0	1	0	0	0	17	16.4
17:30	0	0	0	0	0	0	0	0	0	0	0	1	16	0	4	0	0	0	21	20.4
17:45	0	0	0	0	0	0	0	0	0	0	0	0	22	0	1	0	0	0	23	23
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	64	0	6	0	0	0	72	70.8
18:00	0	0	0	0	0	0	0	0	0	0	0	0	16	0	3	0	0	0	19	19
18:15	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	17	17
18:30	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	9
18:45	0	0	0	0	0	0	0	0	0	0	0	0	8	0	2	0	0	0	10	10
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	50	0	5	0	0	0	55	55
12 TOT	0	0	0	0	0	0	0	0	0	0	0	2	505	7	46	5	0	1	566	568.3

C => A										C => B										C => C									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	25	0	4	0	1	0	30	31.3	0	0	12	2	1	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0
0	0	19	1	3	0	0	1	24	25	0	0	15	1	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0
0	0	32	2	4	1	1	0	40	41.8	0	0	15	0	5	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0
0	0	33	0	1	1	1	3	39	43.8	0	0	14	0	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
0	0	109	3	12	2	3	4	133	141.9	0	0	56	3	7	1	0	0	67	67.5	0	0	0	0	0	0	0	0	0	0
2	0	35	0	0	0	0	1	38	37.4	0	0	18	1	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
0	0	56	0	3	0	0	1	60	61	0	0	24	2	2	0	0	0	28	28	0	0	0	0	0	0	0	0	0	0
3	0	91	0	2	0	0	1	97	95.6	0	0	28	0	1	1	0	0	30	30.5	0	0	0	0	0	0	0	0	0	0
3	0	87	3	3	1	1	1	99	99.4	0	0	44	1	1	0	0	0	46	46	0	0	0	0	0	0	0	0	0	0
8	0	269	3	8	1	1	4	294	293.4	0	0	114	4	4	1	0	0	123	123.5	0	0	0	0	0	0	0	0	0	0
3	0	59	3	3	2	0	2	72	72.6	0	0	43	0	2	0	0	0	45	45	0	0	0	0	0	0	0	0	0	0
0	0	31	3	3	3	1	2	43	47.8	0	0	9	1	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
0	0	31	1	4	0	1	0	37	38.3	0	0	15	0	2	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0
0	0	41	0	2	1	0	2	46	48.5	0	0	13	1	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
3	0	162	7	12	6	2	6	198	207.2	0	0	80	2	6	0	0	0	88	88	0	0	0	0	0	0	0	0	0	0
0	0	28	0	0	0	0	1	29	30	0	0	10	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
0	0	31	0	2	0	0	2	35	37	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
0	0	28	2	4	0	0	0	34	34	0	0	12	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
0	0	30	0	4	0	0	3	37	40	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
0	0	117	2	10	0	0	6	135	141	0	0	31	0	0	0	0	0	31	31	0	0	0	0	0	0	0	0	0	0
0	0	29	0	2	0	0	1	32	33	0	0	6	0	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
0	0	28	0	3	2	0	2	35	38	0	0	8	0	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
0	0	34	1	3	0	0	1	39	40	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
0	0	36	1	2	2	0	1	42	44	0	0	14	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0
0	0	127	2	10	4	0	5	148	155	0	0	35	0	2	0	0	0	37	37	0	0	0	0	0	0	0	0	0	0
0	0	38	1	2	0	0	1	42	43	0	0	5	0	2	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
1	0	32	1	5	1	0	0	40	39.7	0	0	13	0	2	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
0	0	29	1	2	0	0	1	33	34	0	0	4	0	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
1	0	36	0	2	1	0	2	42	43.7	0	0	12	0	1	0	0	1	14	15	0	0	0	0	0	0	0	0	0	0
2	0	135	3	11	2	0	4	157	160.4	0	0	34	0	7	0	0	1	42	43	0	0	0	0	0	0	0	0	0	0
0	0	16	1	2	1	0	2	22	24.5	0	0	12	0	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
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0	0	22	2	0	0	0	2	26	28	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
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APPENDIX B: TRAFFIC FLOW DIAGRAMS

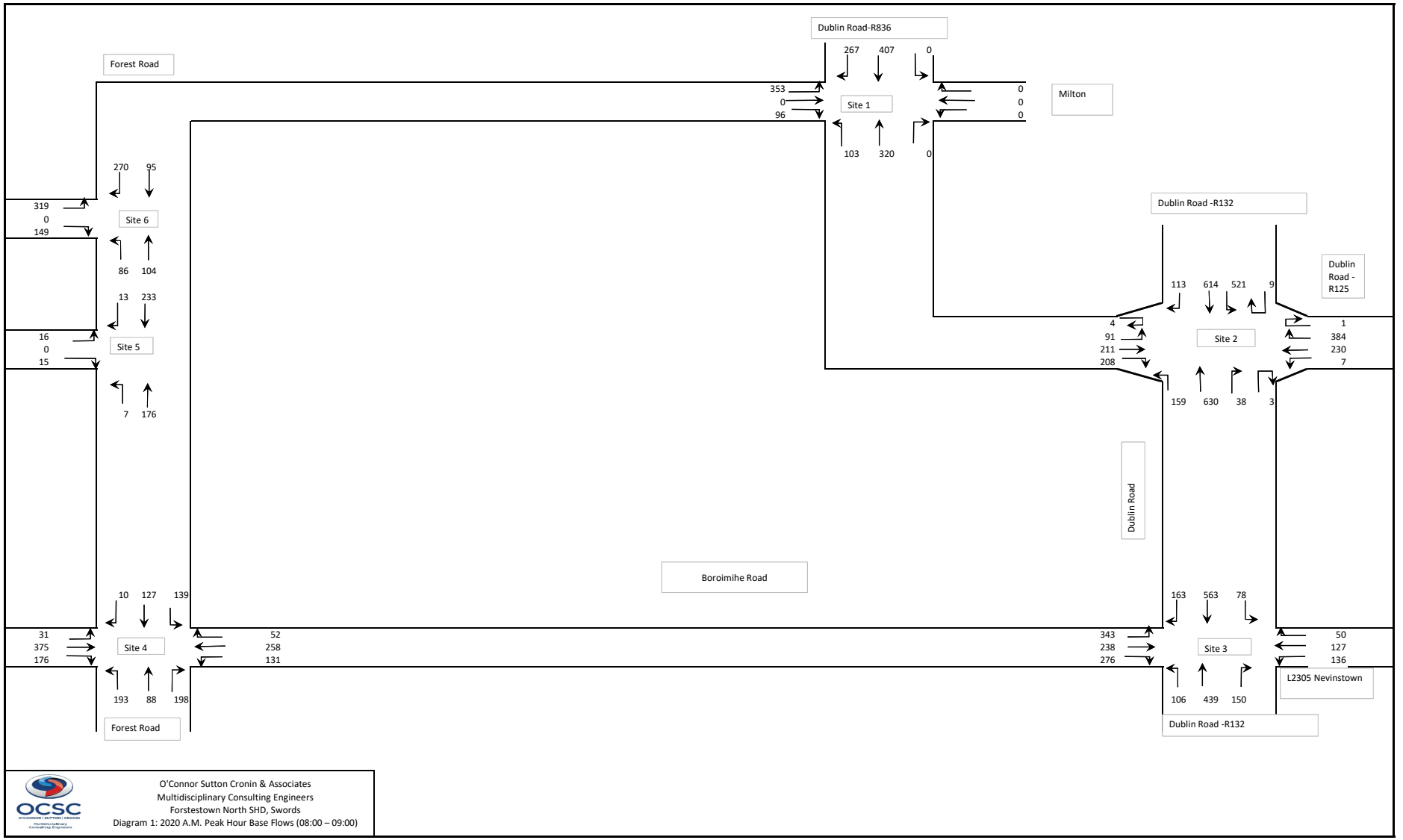

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Diagram 1: 2020 A.M. Peak Hour Base Flows (08:00 – 09:00)

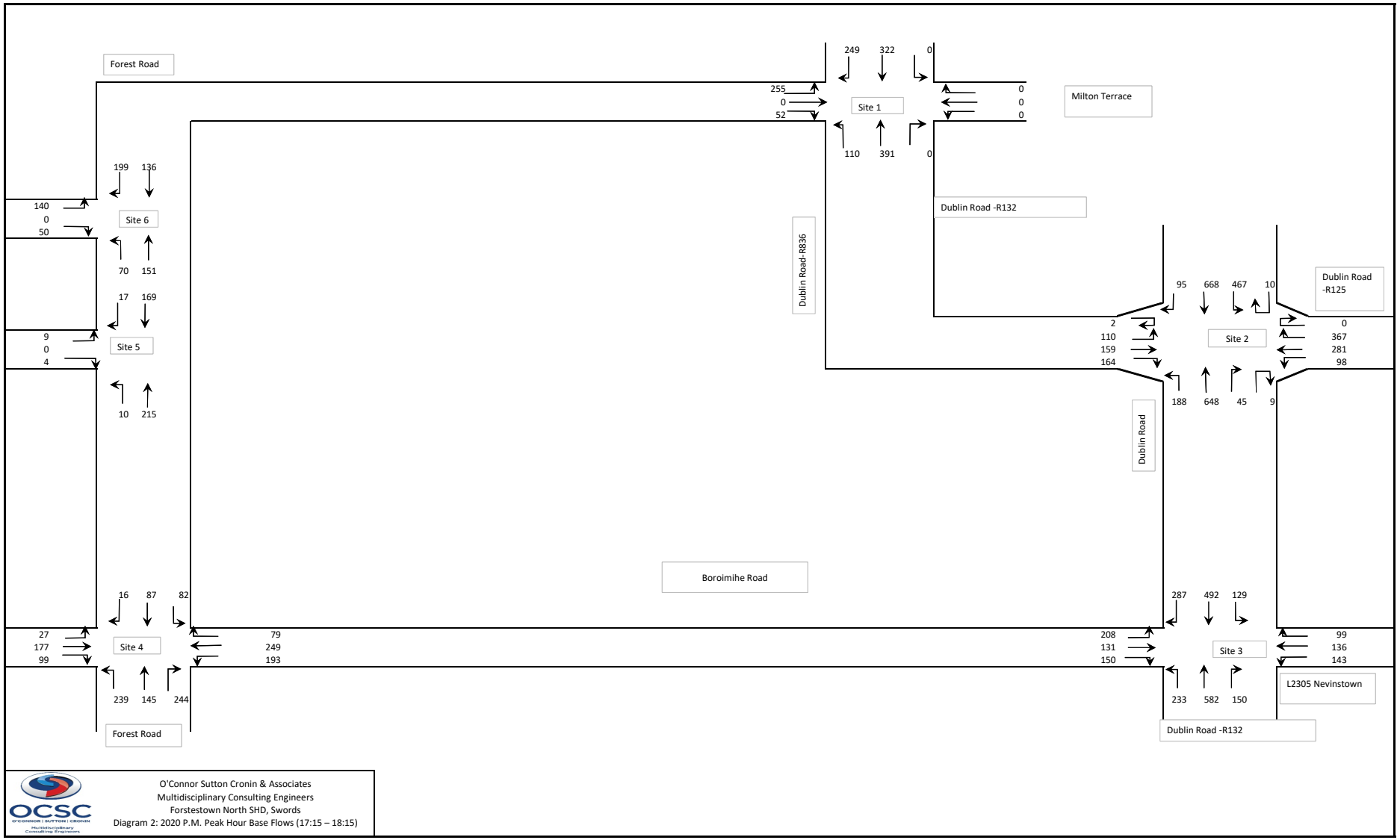

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Diagram 2: 2020 P.M. Peak Hour Base Flows (17:15 – 18:15)

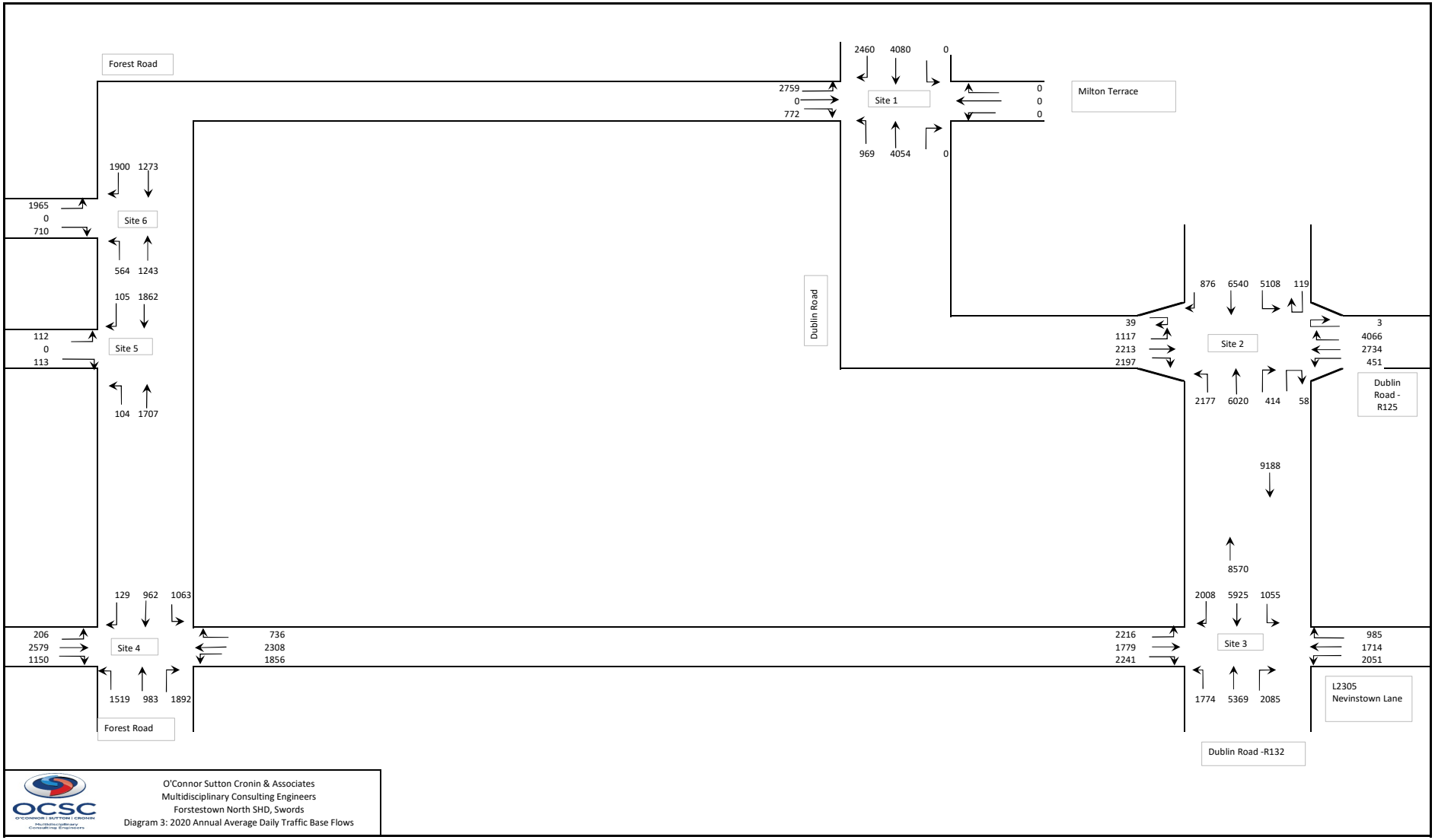

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Diagram 3: 2020 Annual Average Daily Traffic Base Flows

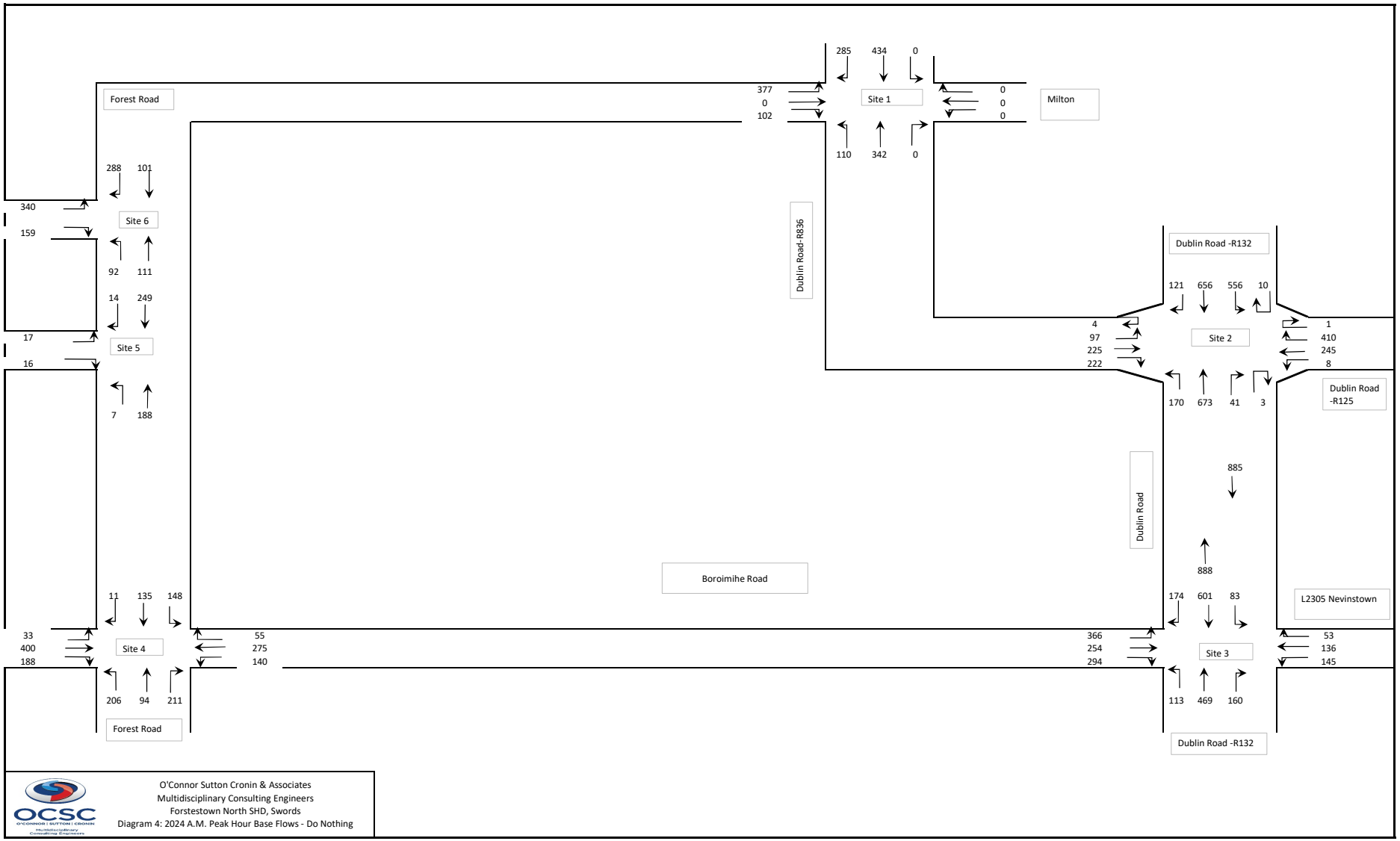

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Diagram 4: 2024 A.M. Peak Hour Base Flows - Do Nothing

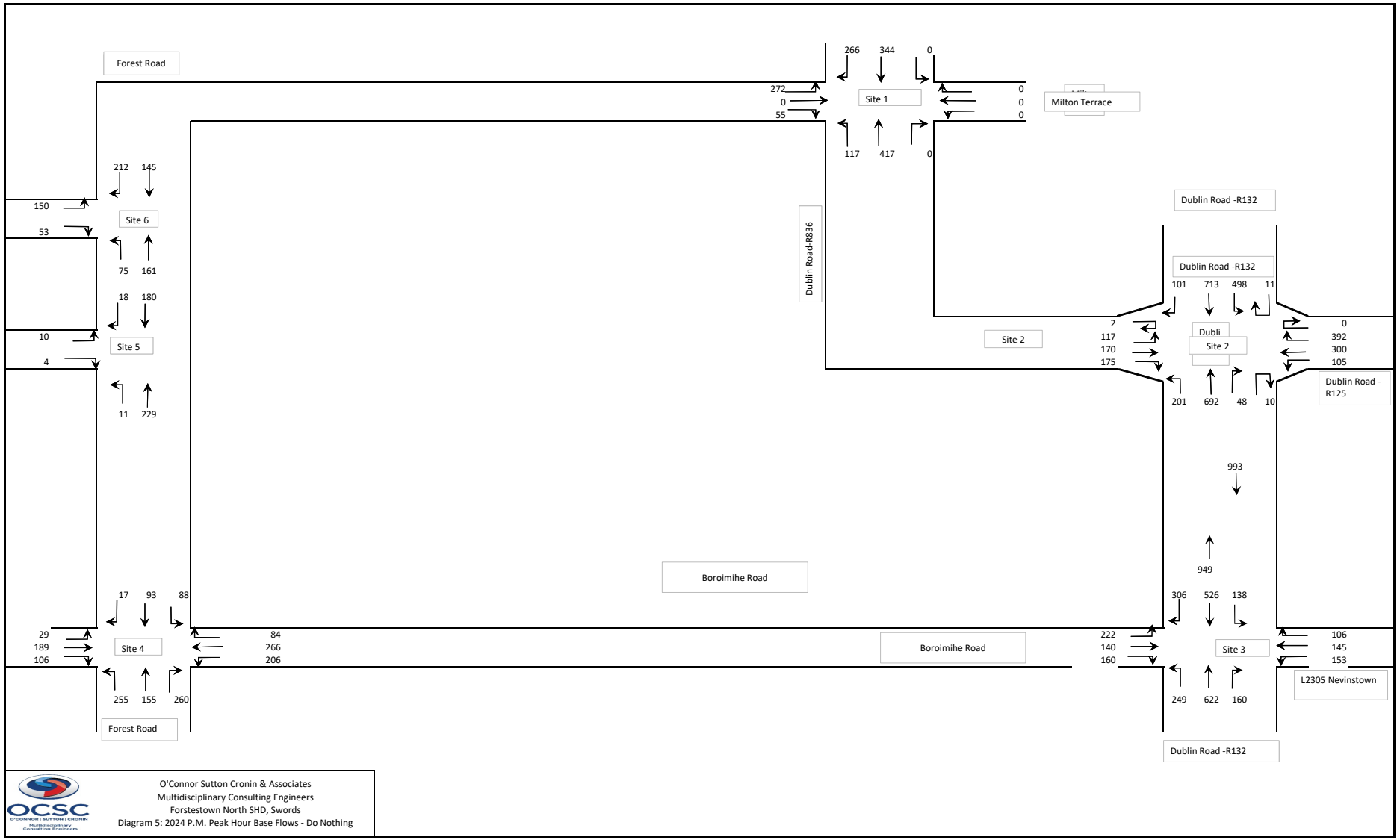

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Diagram 5: 2024 P.M. Peak Hour Base Flows - Do Nothing

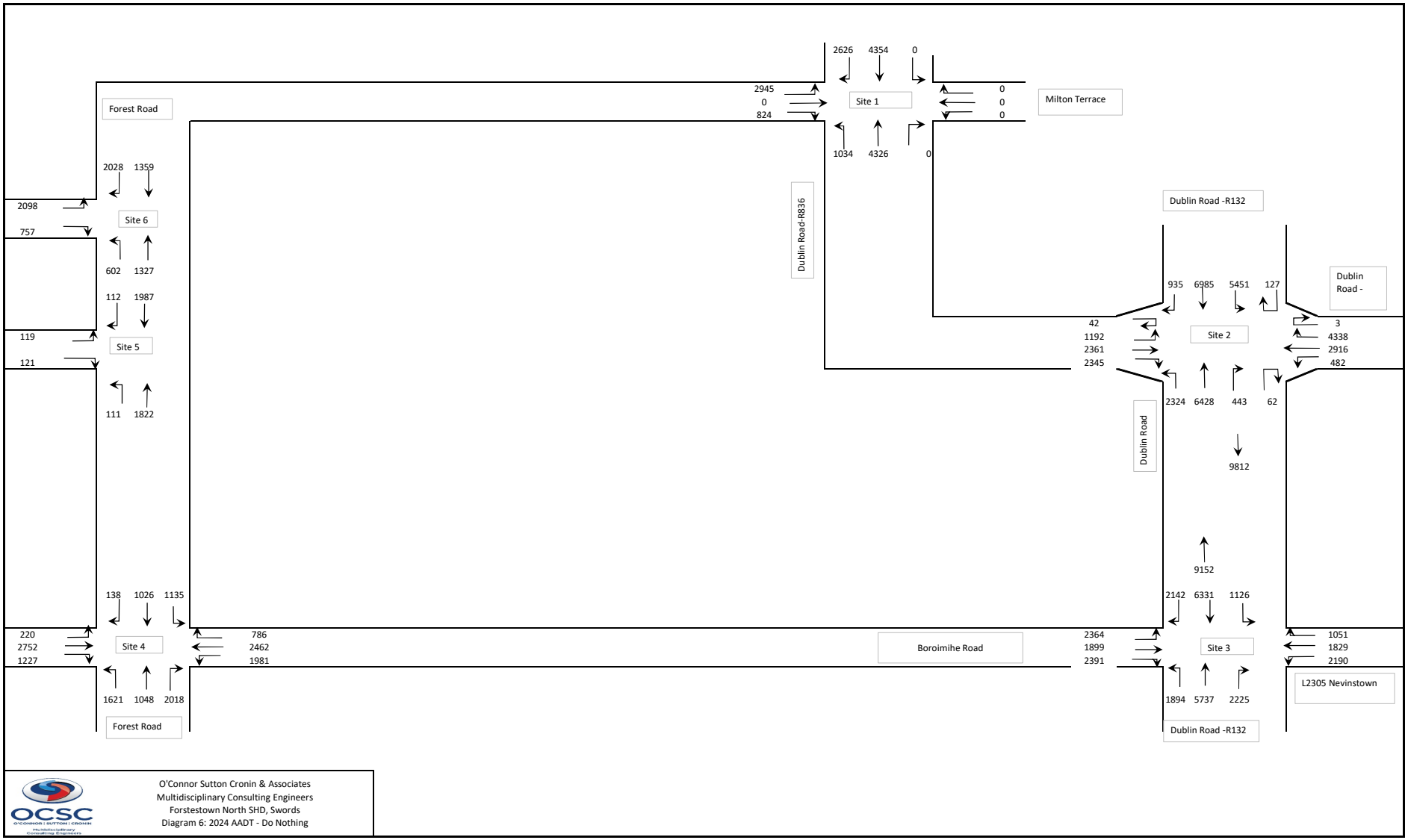

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Diagram 6: 2024 AADT - Do Nothing

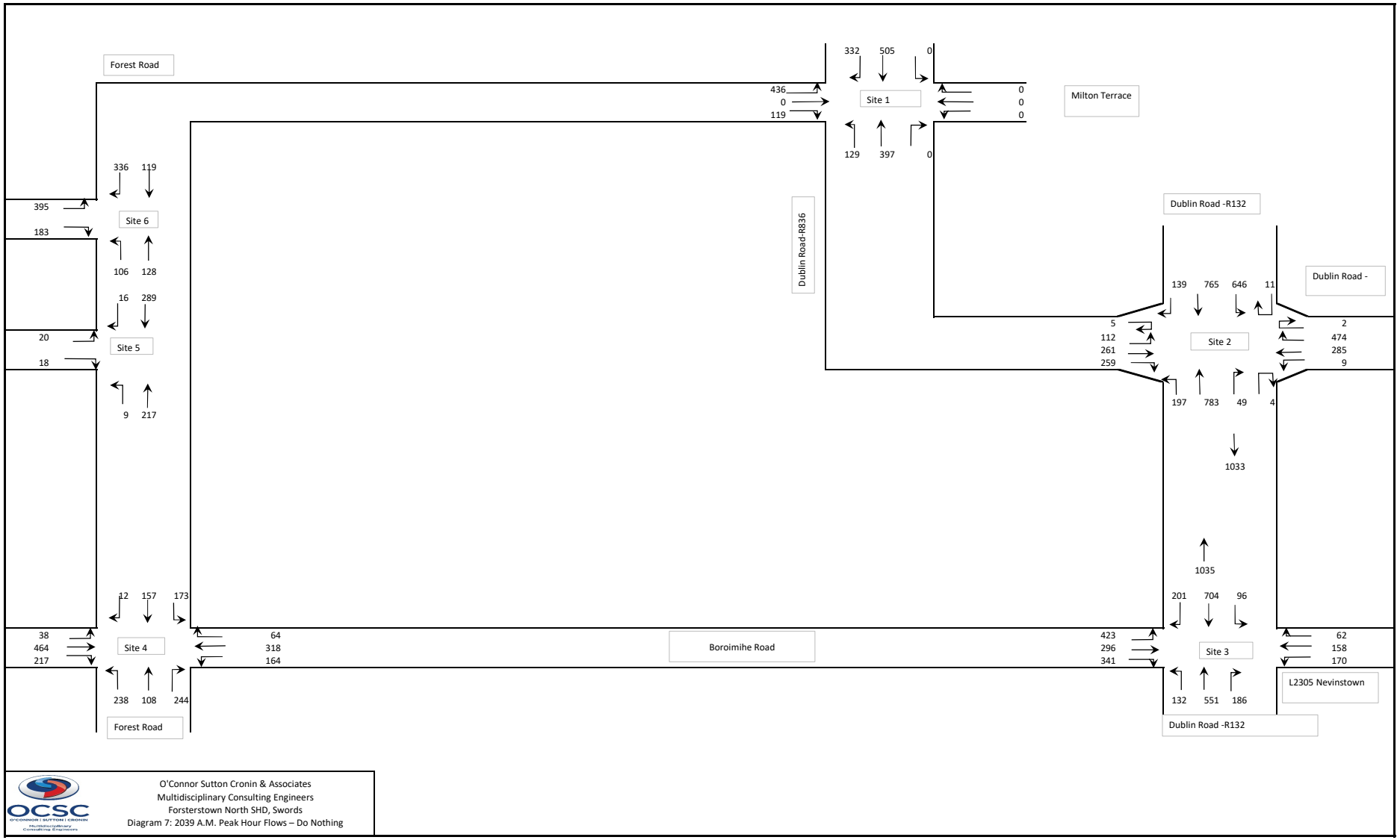

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Diagram 7: 2039 A.M. Peak Hour Flows – Do Nothing

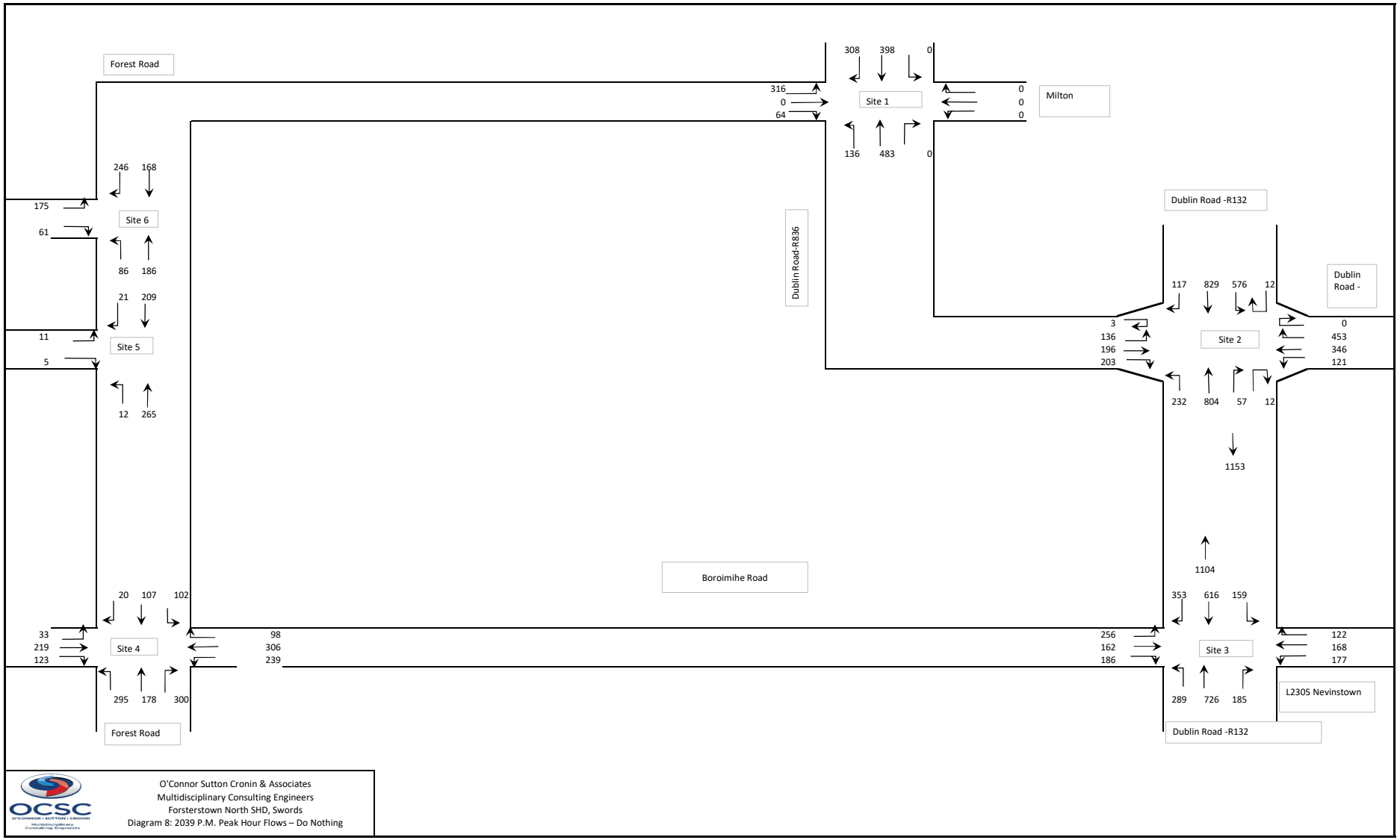

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Diagram 8: 2039 P.M. Peak Hour Flows – Do Nothing

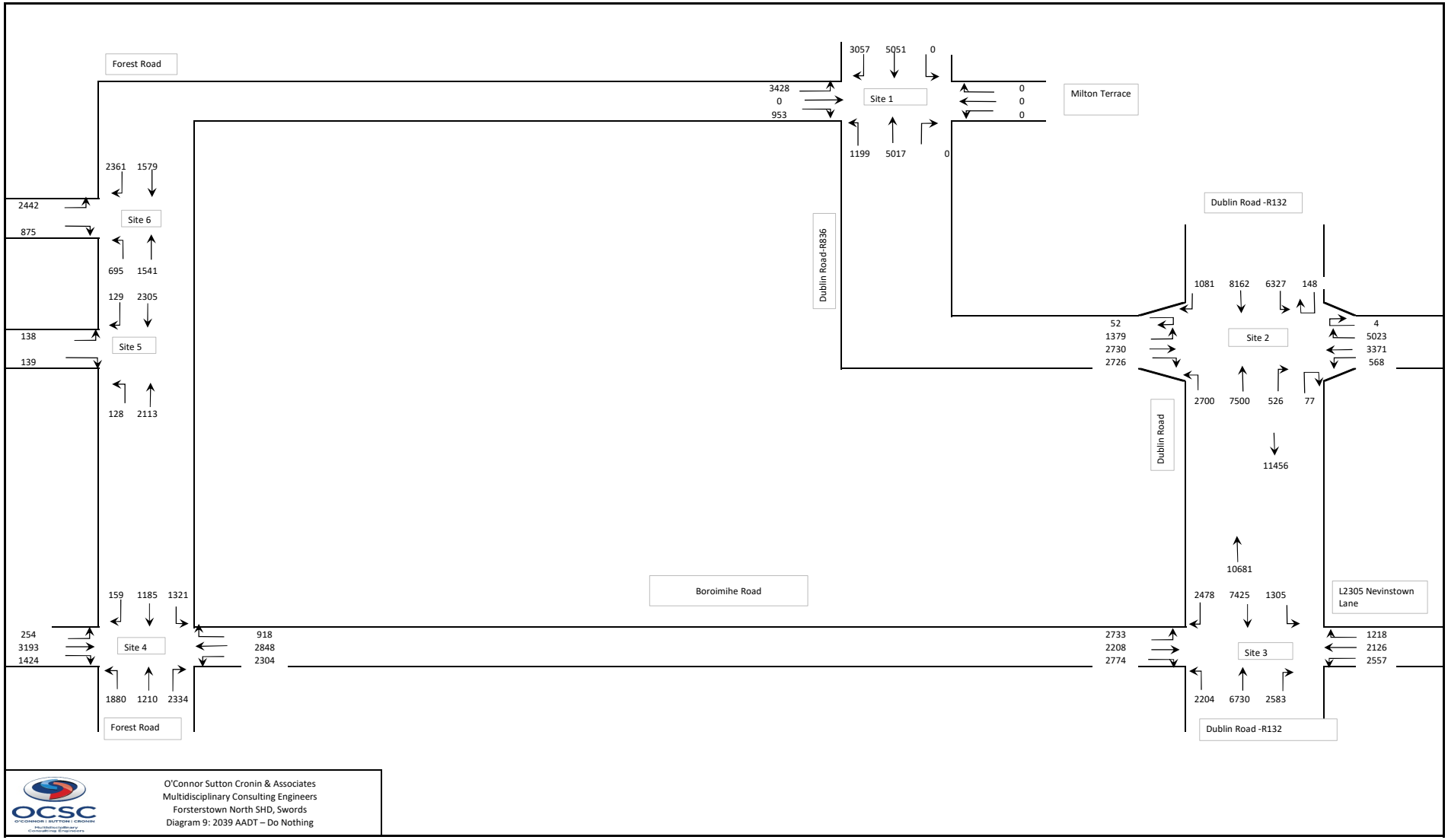

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Diagram 9: 2039 AADT – Do Nothing

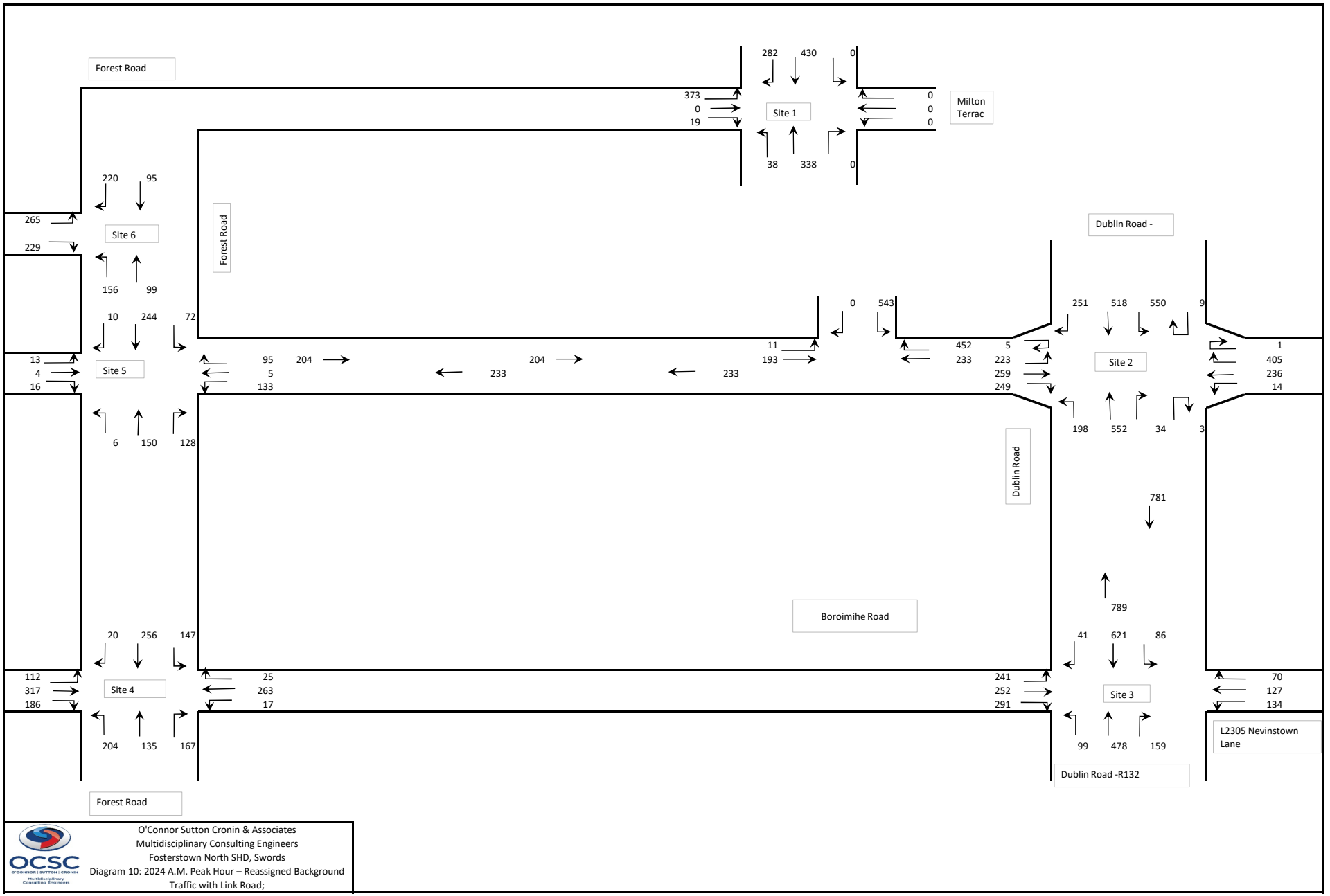

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Diagram 10: 2024 A.M. Peak Hour – Reassigned Background Traffic with Link Road;

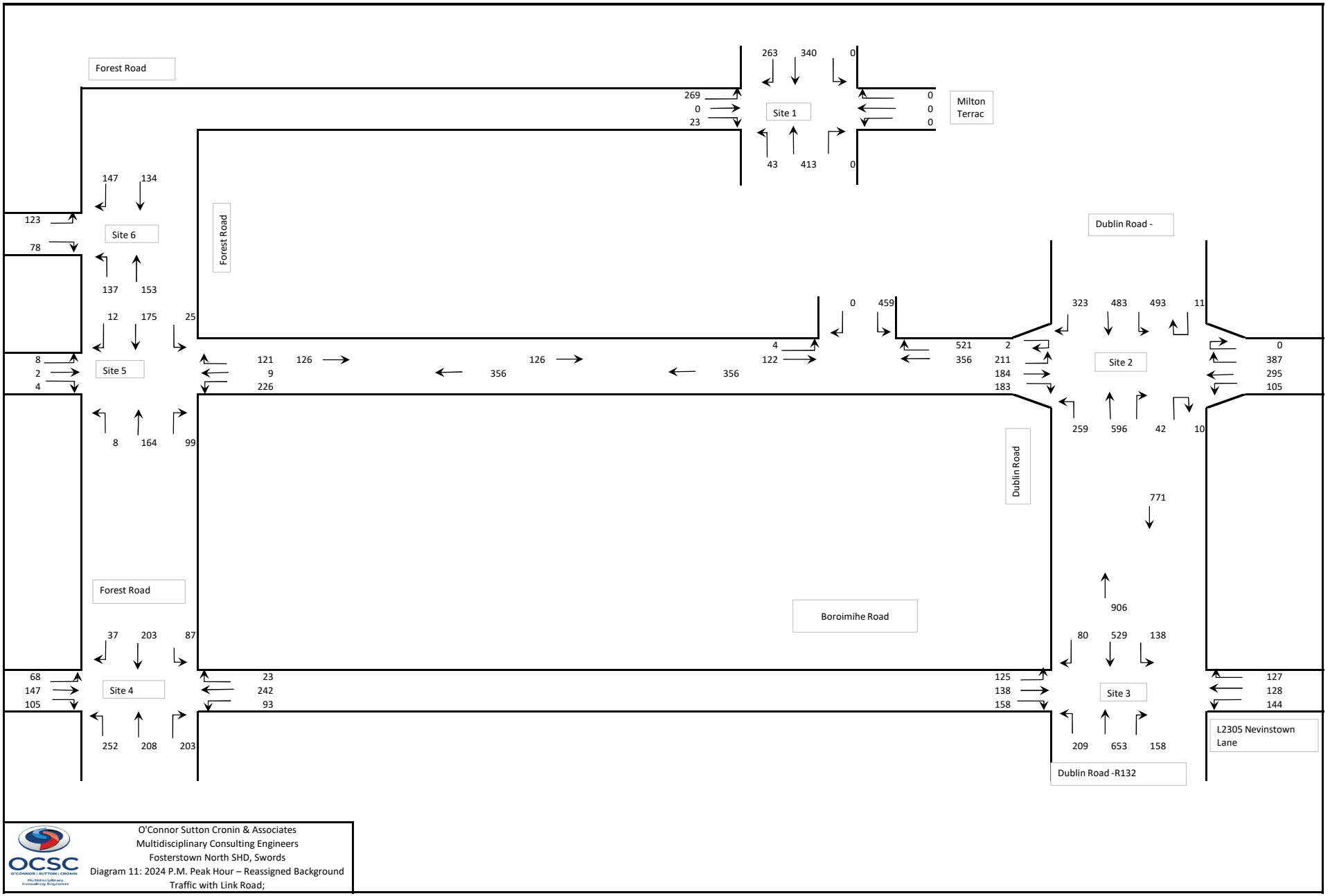

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Diagram 11: 2024 P.M. Peak Hour – Reassigned Background Traffic with Link Road;

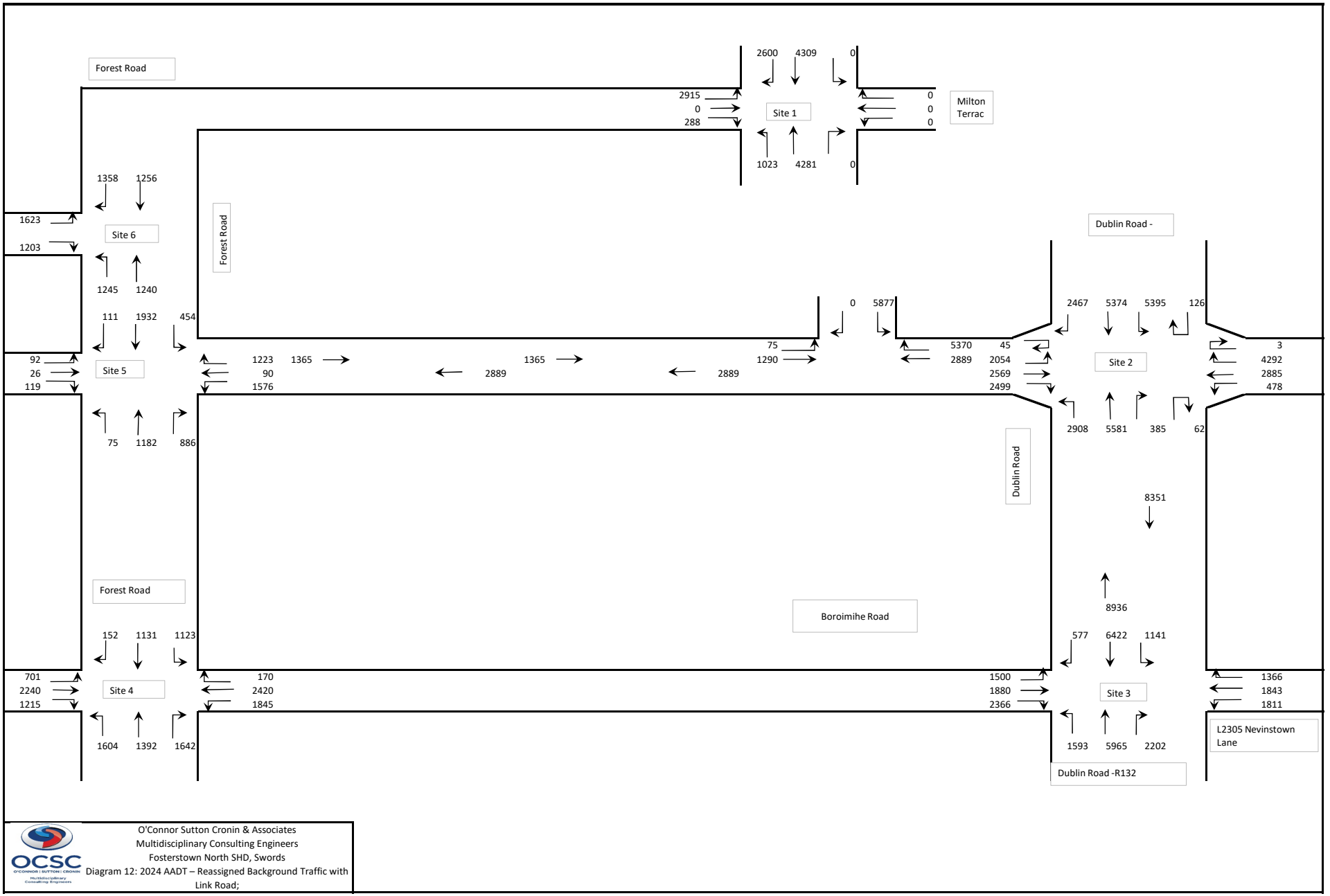

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Diagram 12: 2024 AADT – Reassigned Background Traffic with Link Road;

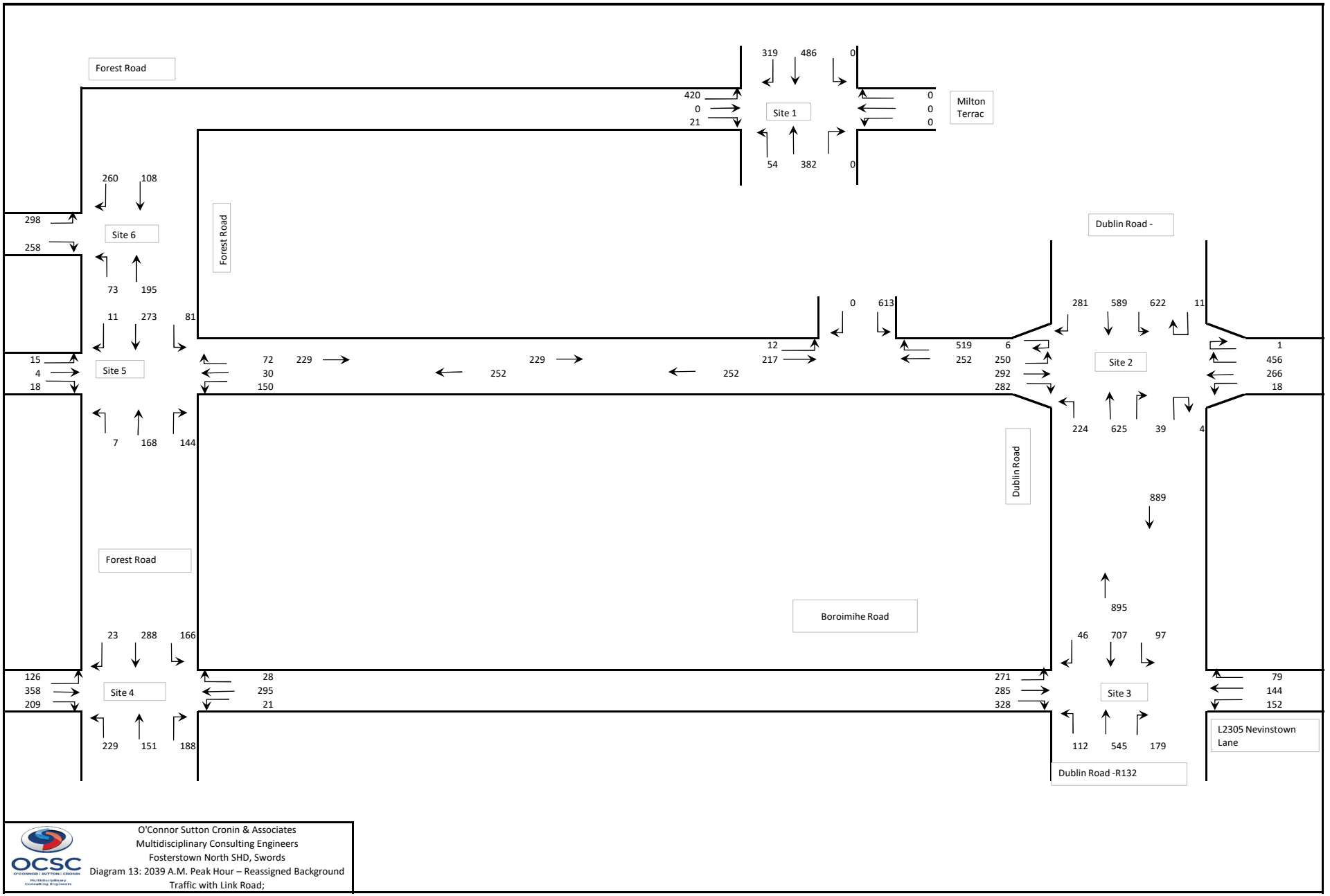

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Diagram 13: 2039 A.M. Peak Hour – Reassigned Background Traffic with Link Road;

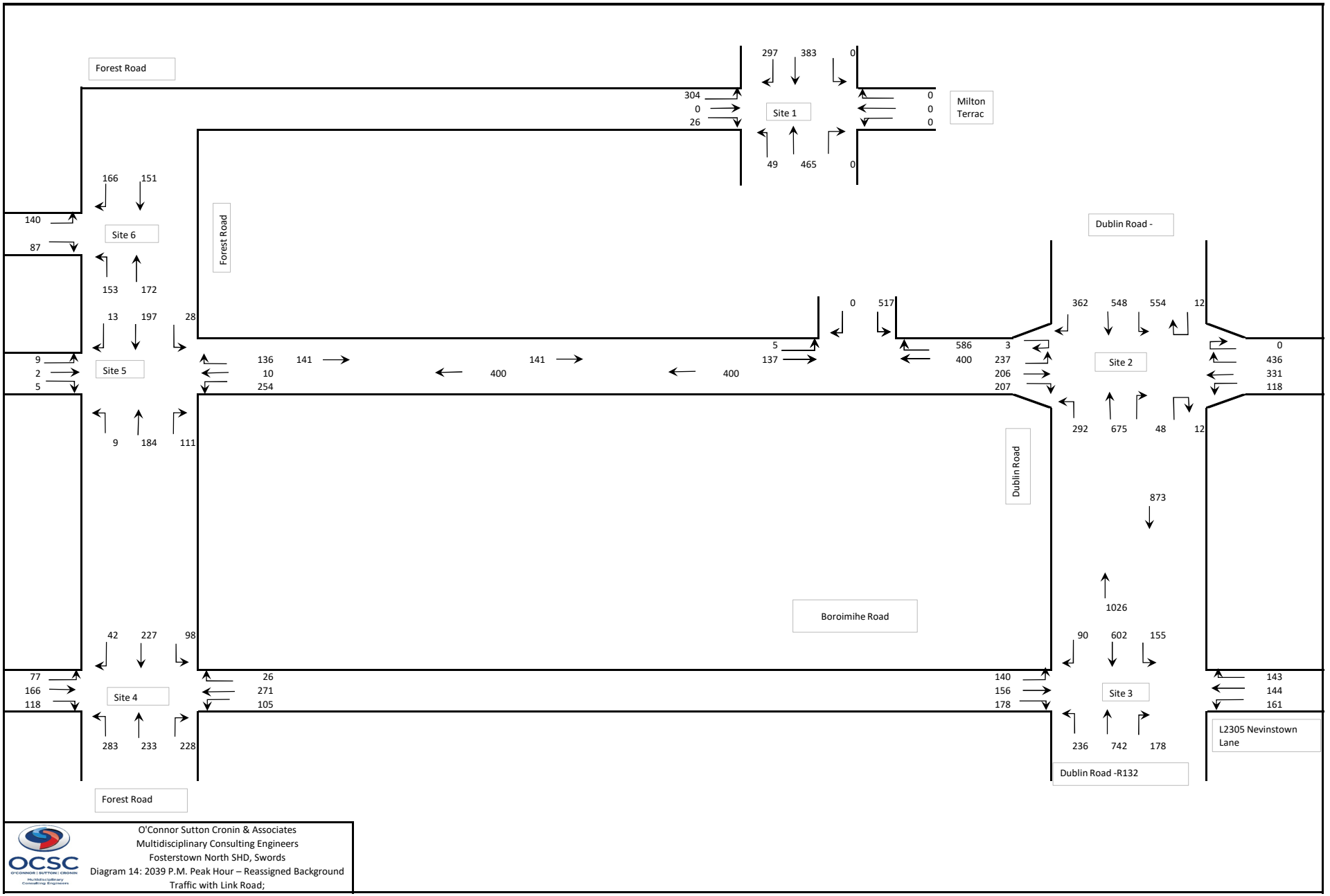

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Diagram 14: 2039 P.M. Peak Hour – Reassigned Background Traffic with Link Road;

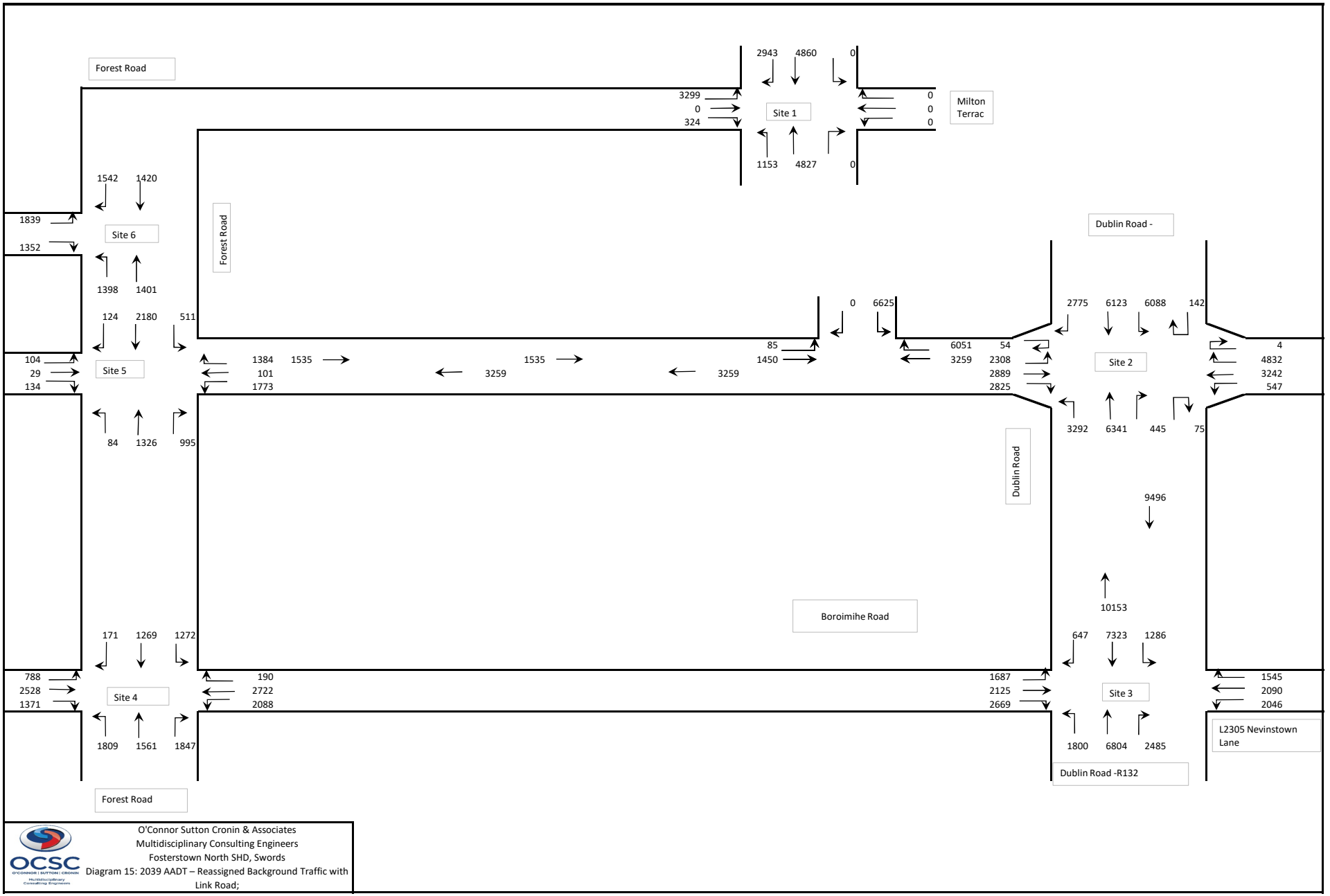

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Diagram 15: 2039 AADT – Reassigned Background Traffic with Link Road;

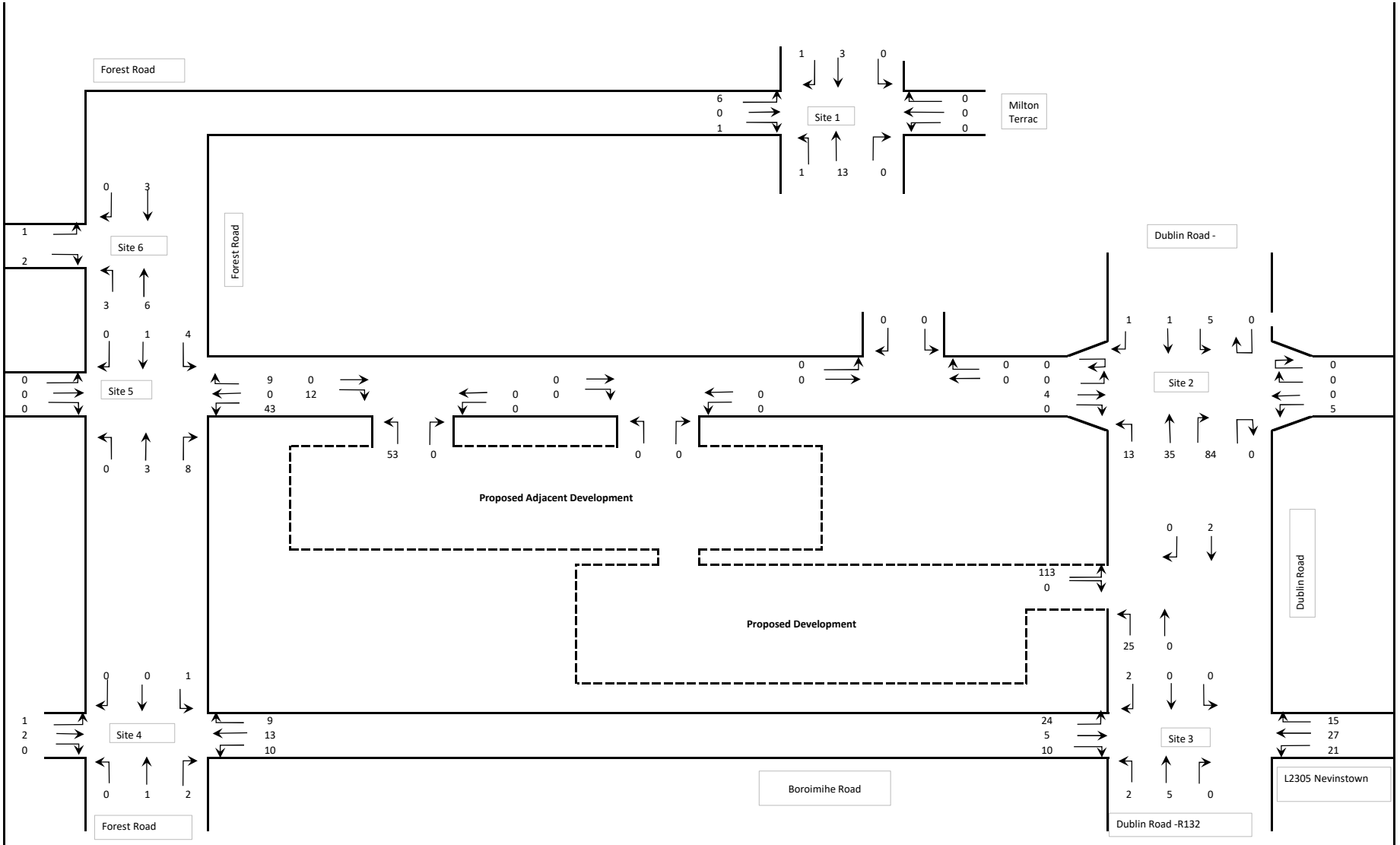

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Diagram 16: A.M. Peak Hour Trip Generation & Assignment - Do Something

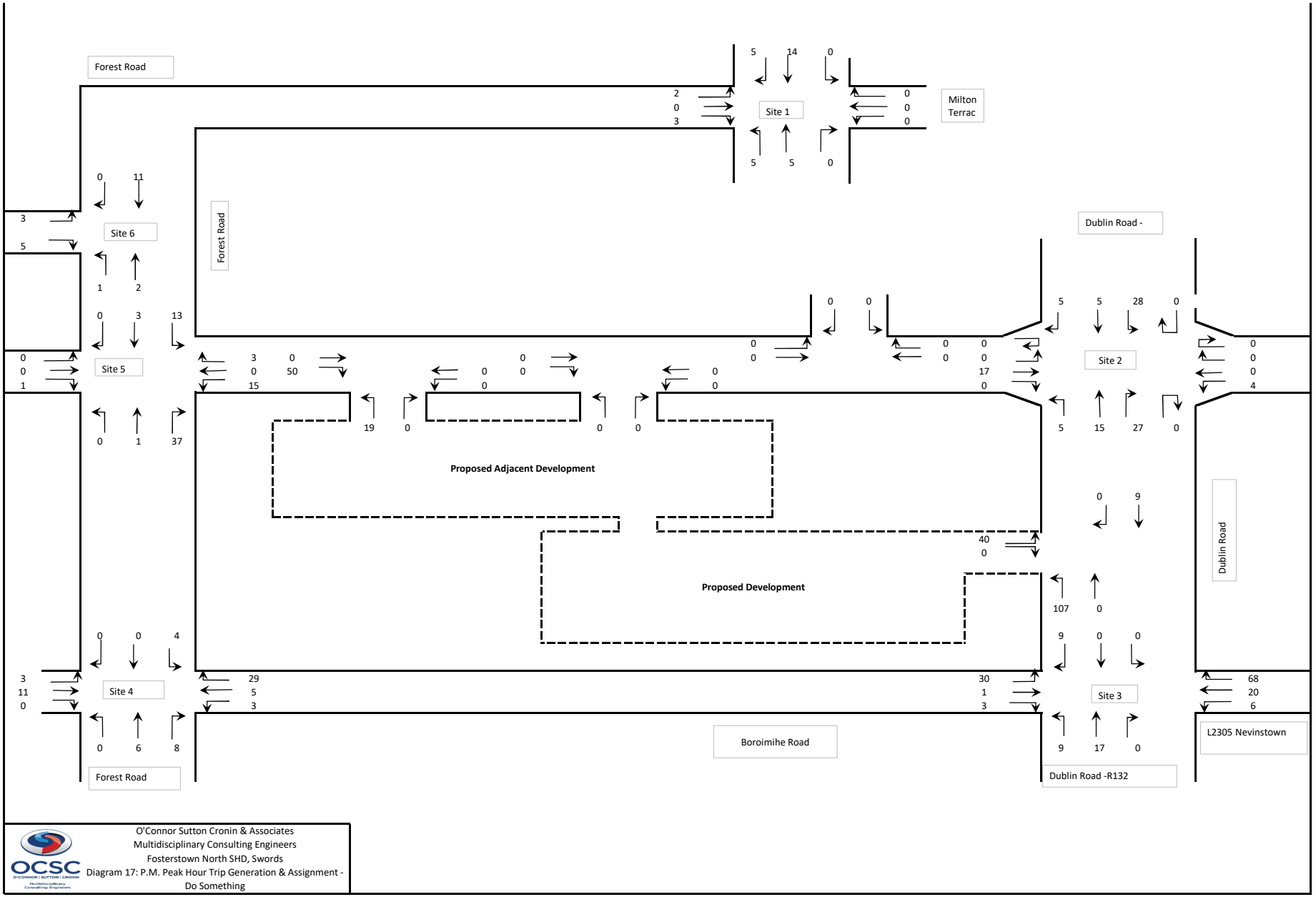

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Diagram 17: P.M. Peak Hour Trip Generation & Assignment - Do Something

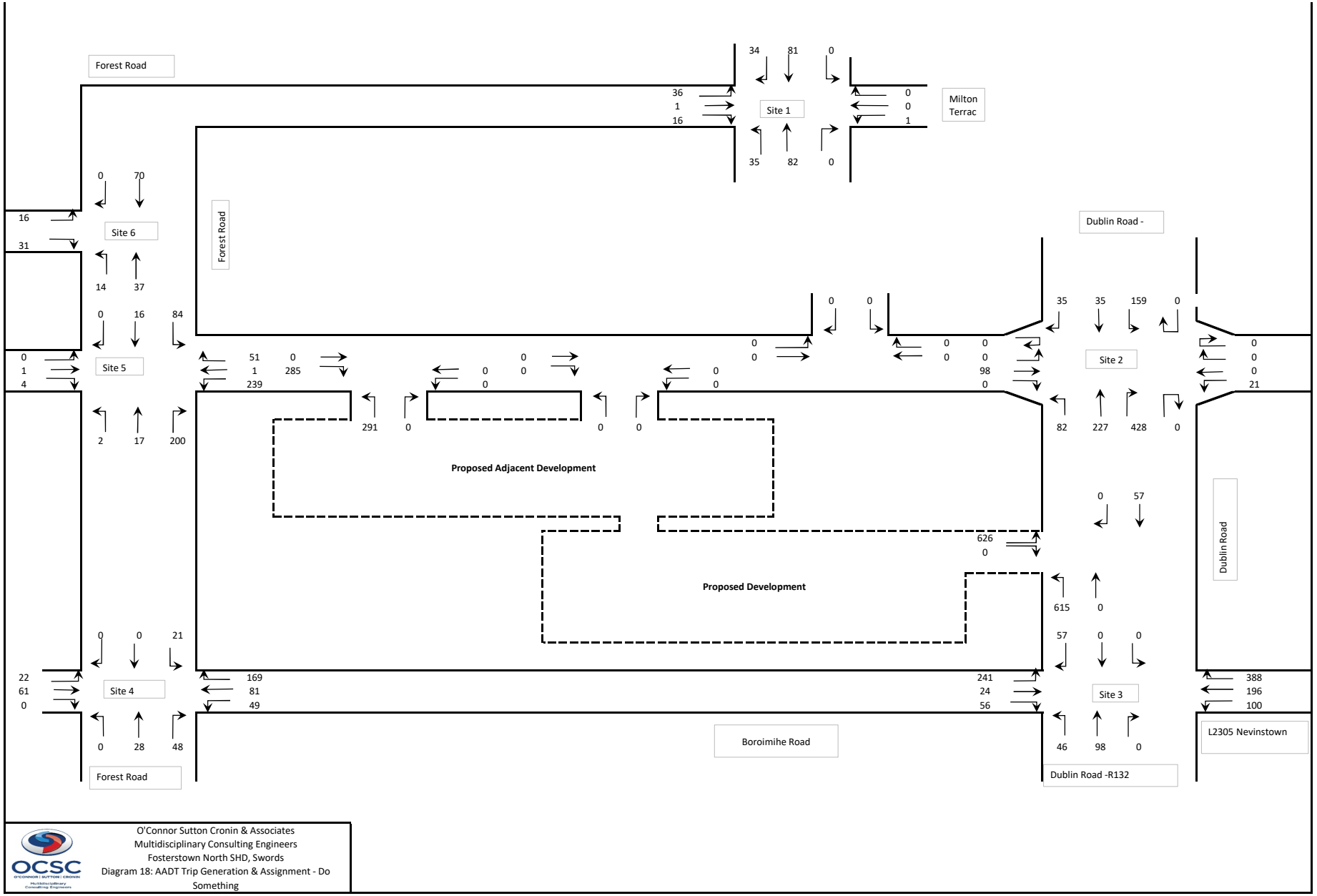

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Diagram 18: AADT Trip Generation & Assignment - Do Something

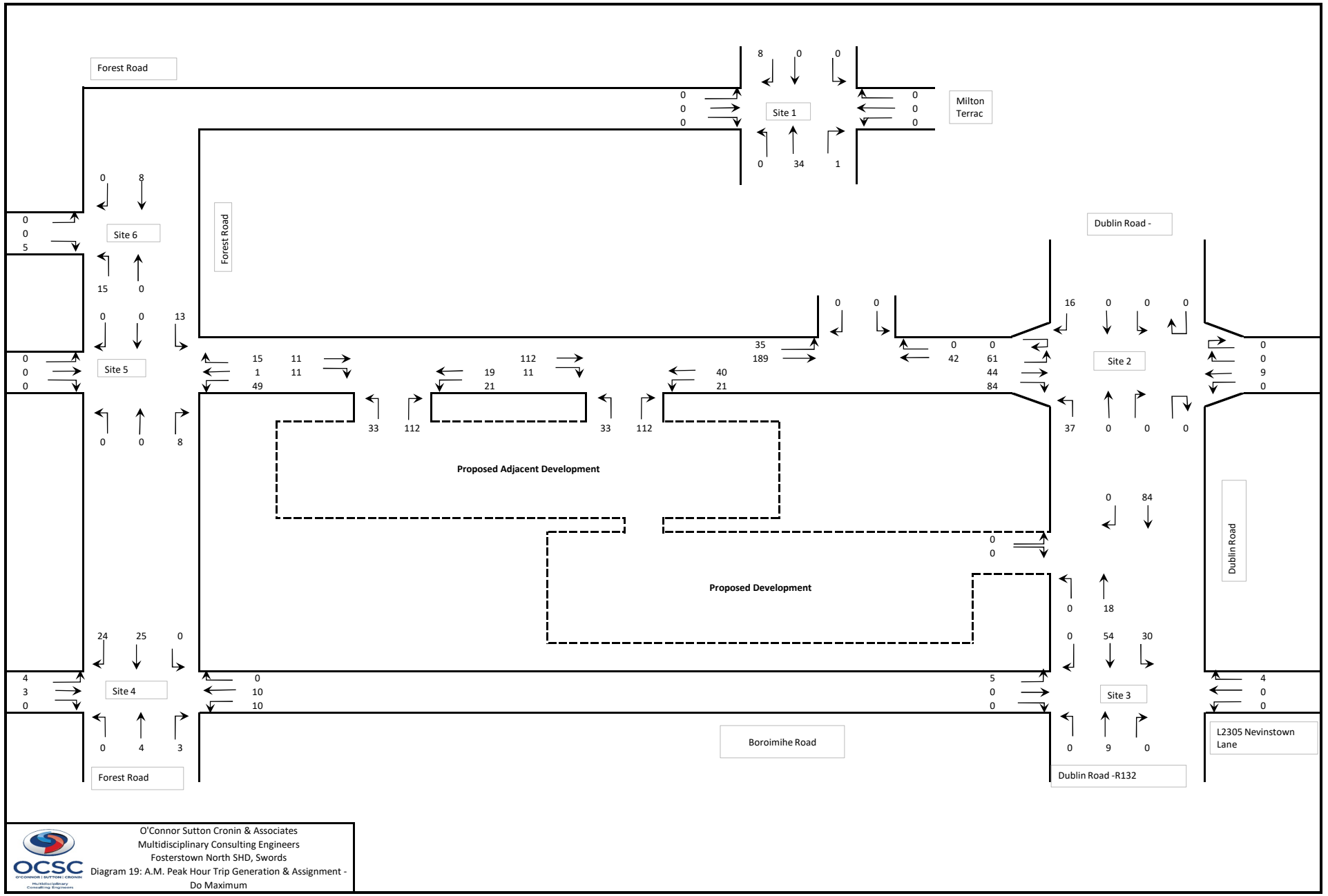

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Diagram 19: A.M. Peak Hour Trip Generation & Assignment - Do Maximum

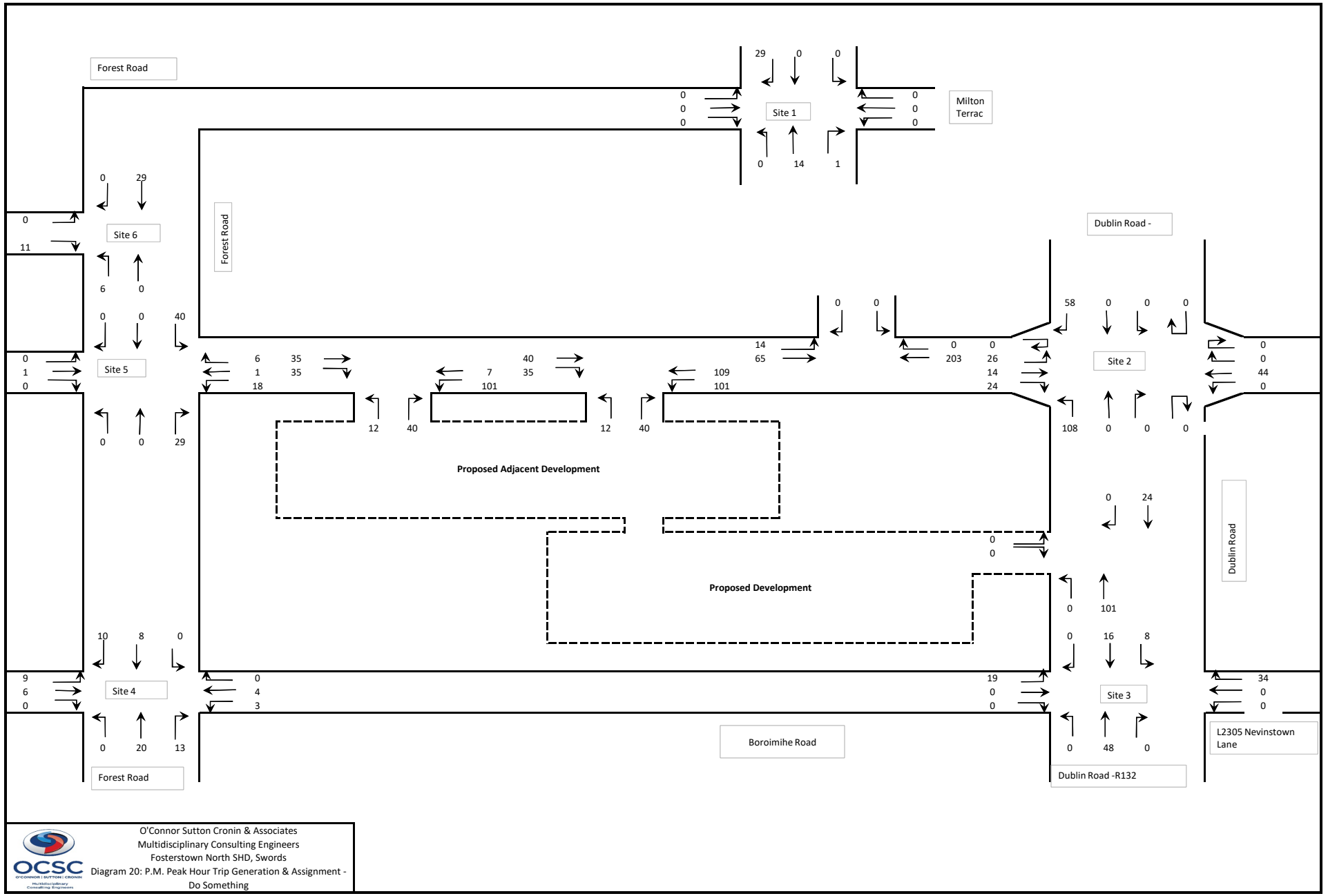

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Diagram 20: P.M. Peak Hour Trip Generation & Assignment - Do Something

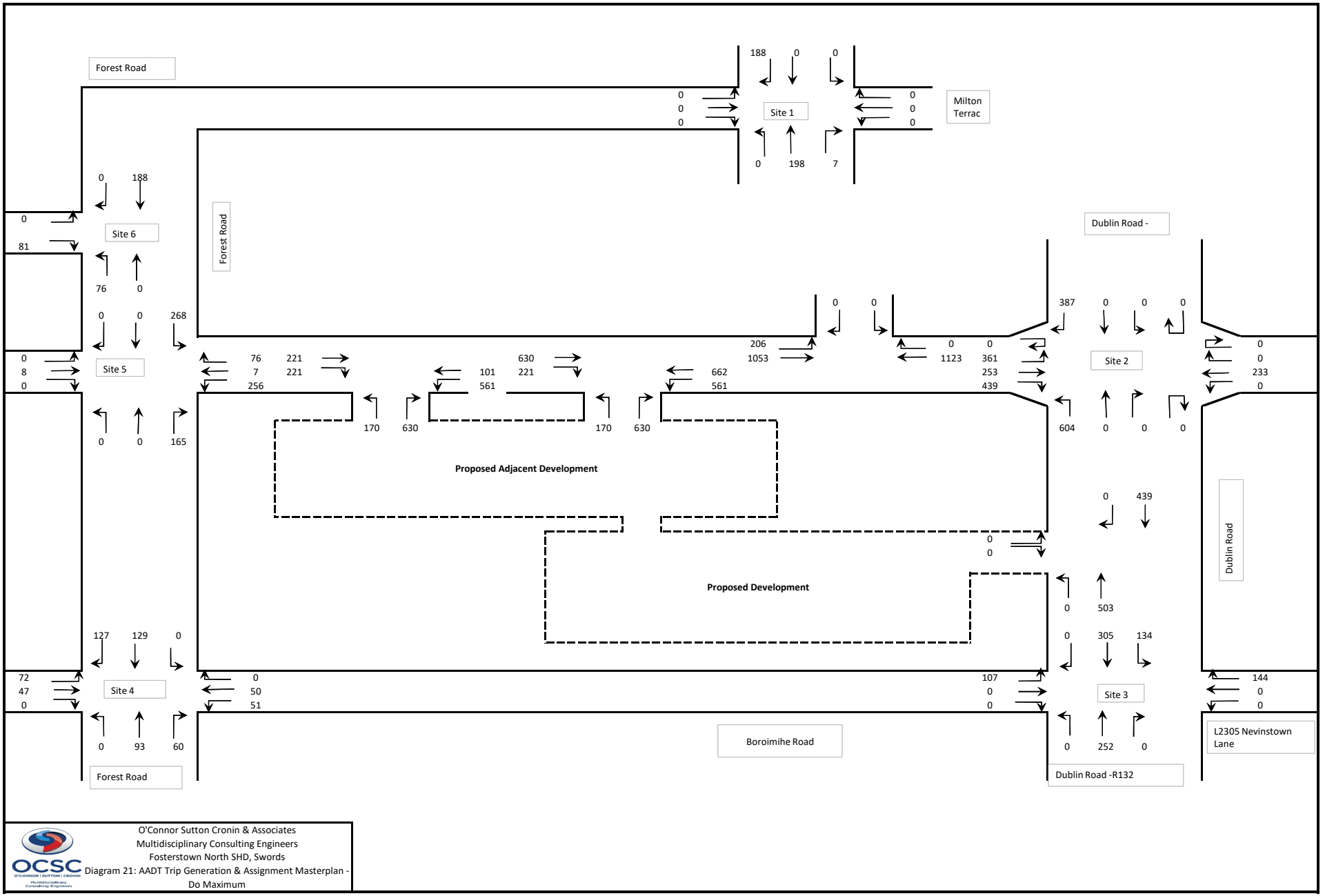

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Diagram 21: AADT Trip Generation & Assignment Masterplan - Do Maximum

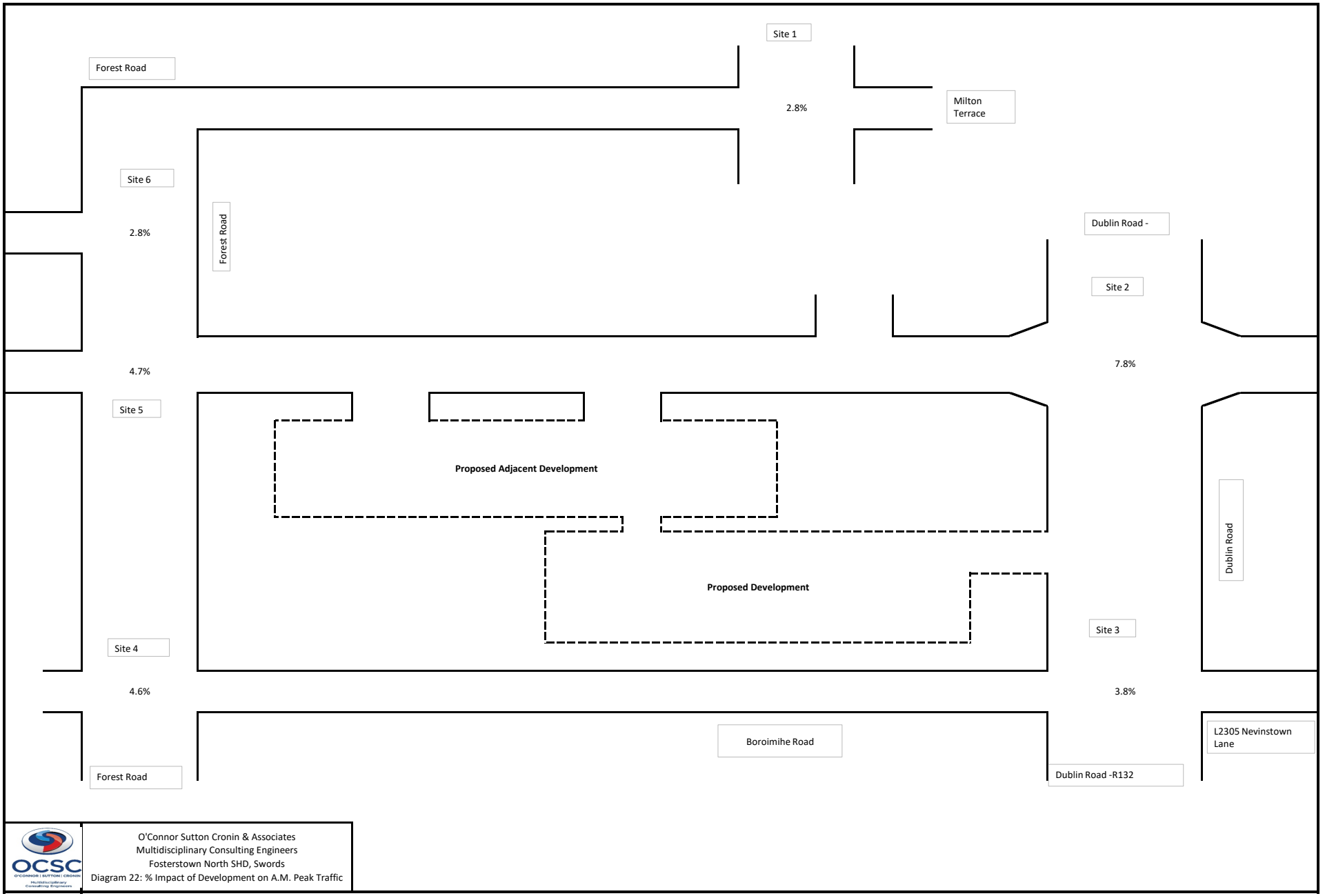

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Diagram 22: % Impact of Development on A.M. Peak Traffic

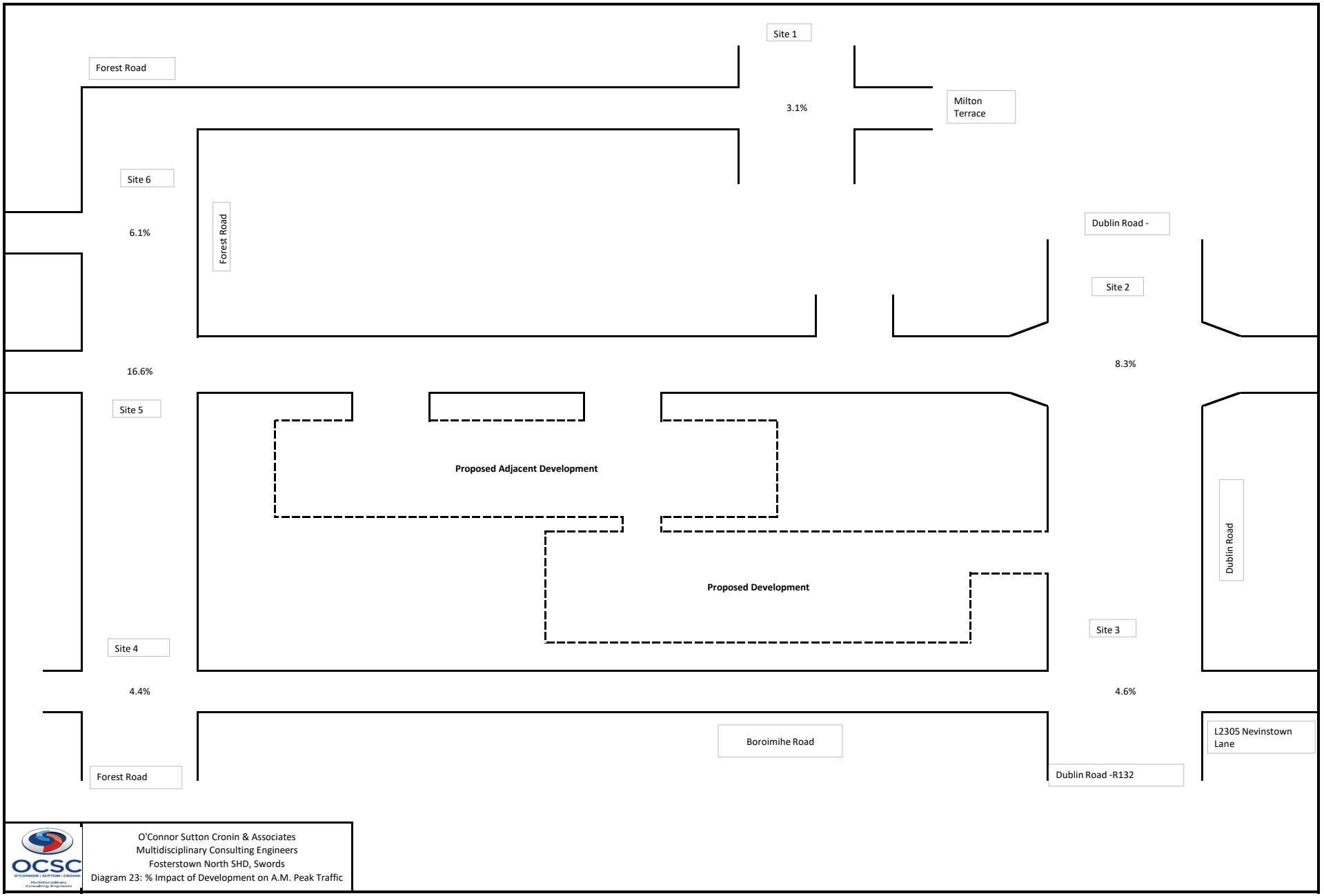

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Diagram 23: % Impact of Development on A.M. Peak Traffic

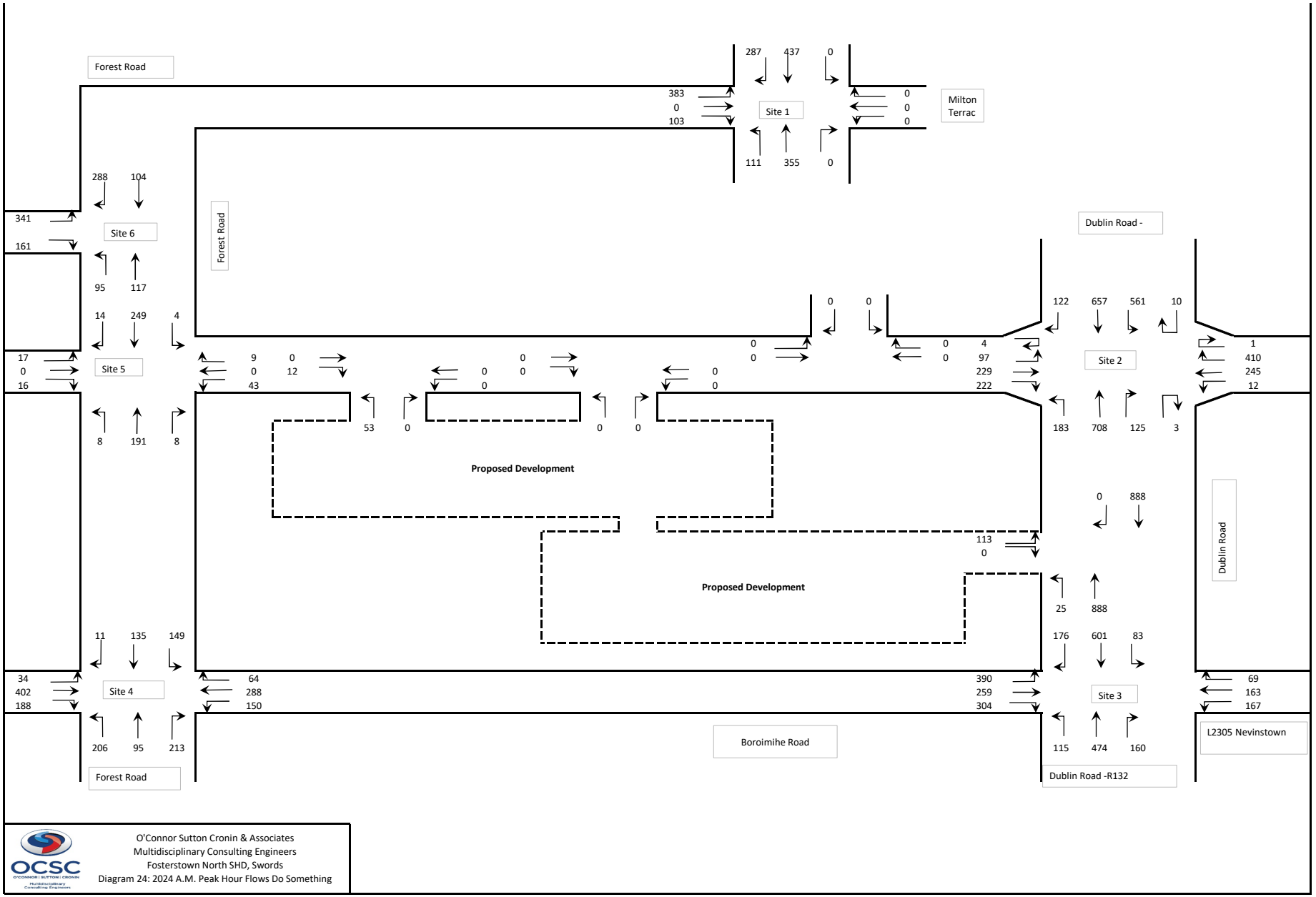

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Diagram 24: 2024 A.M. Peak Hour Flows Do Something

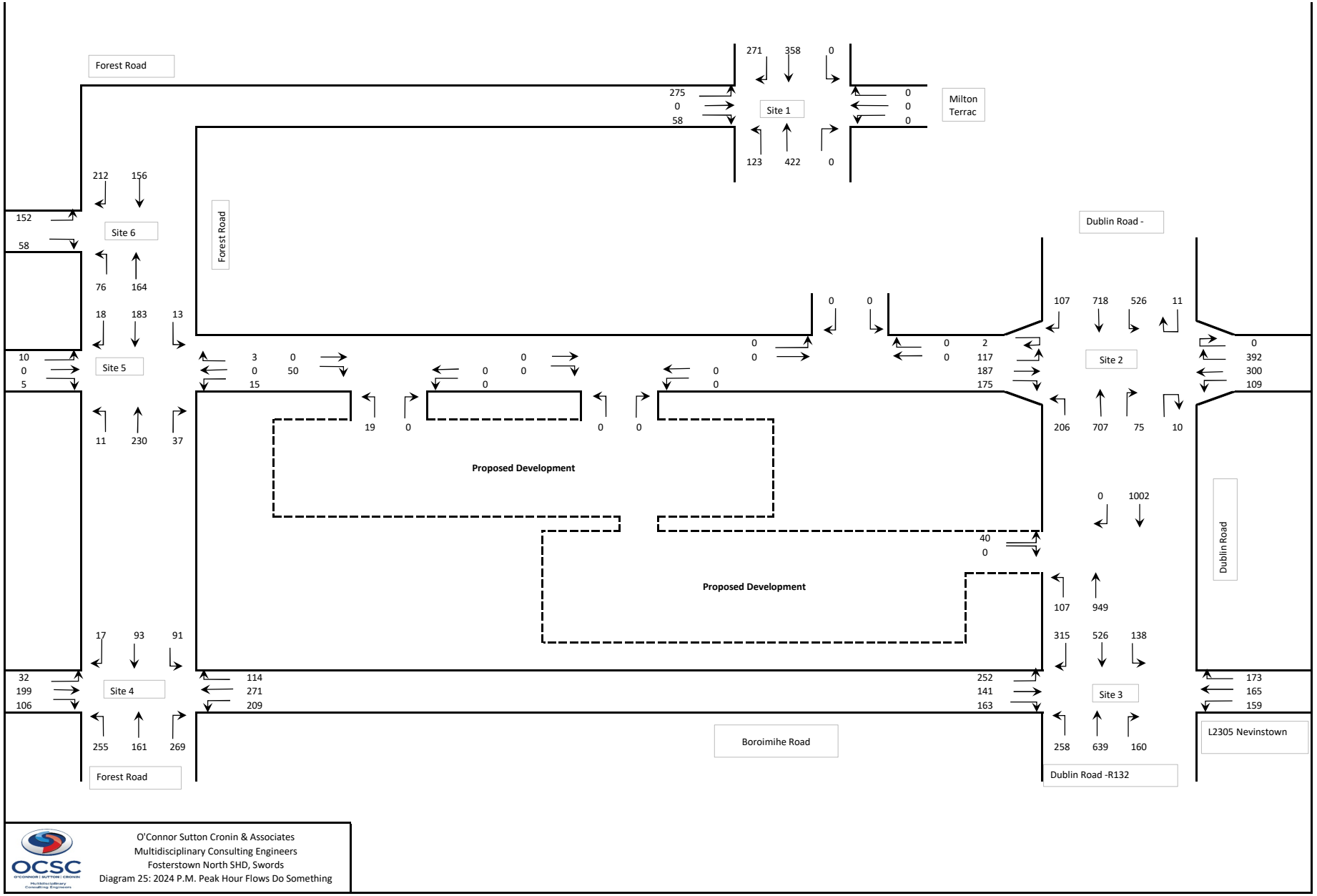

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Diagram 25: 2024 P.M. Peak Hour Flows Do Something

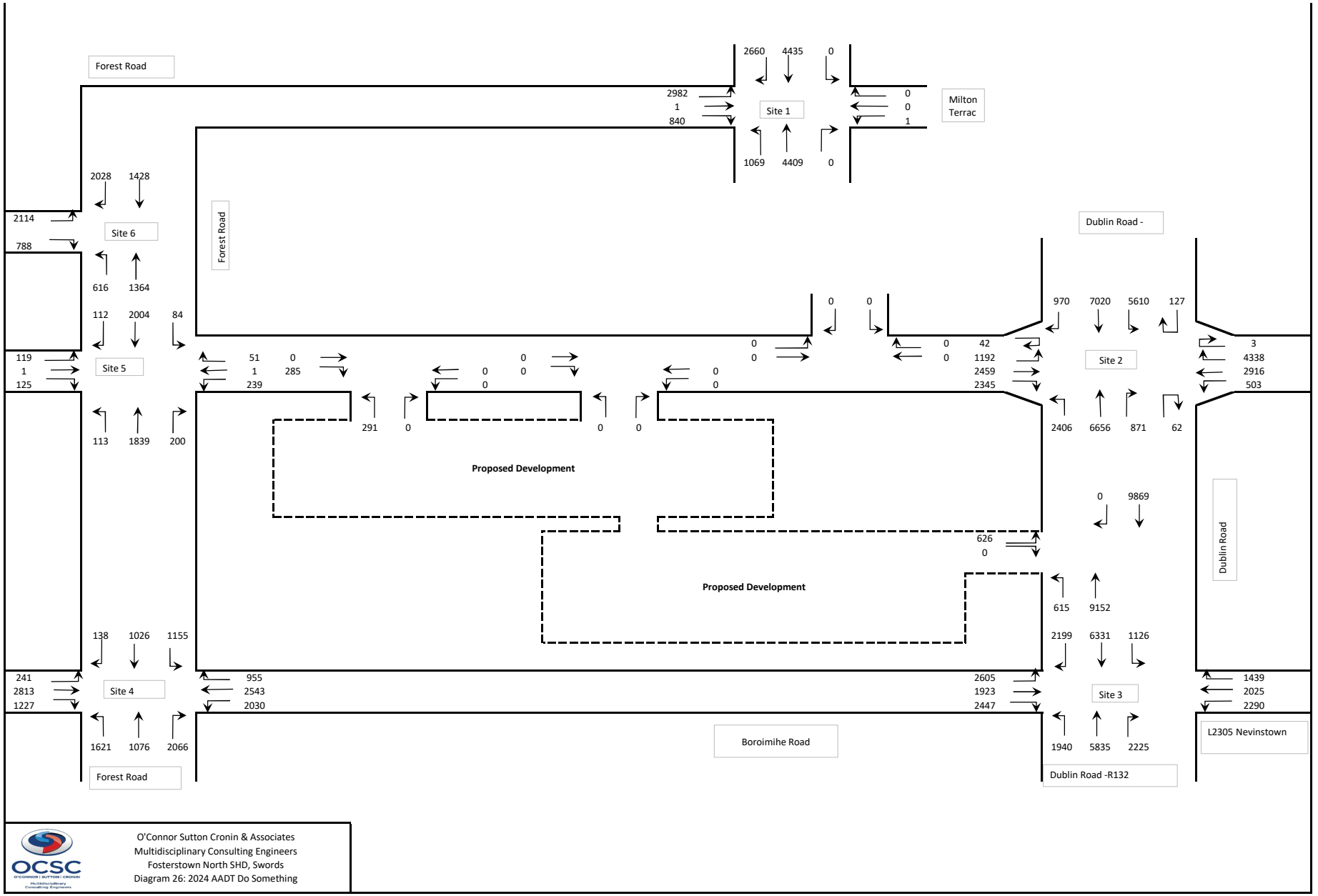

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Diagram 26: 2024 AADT Do Something

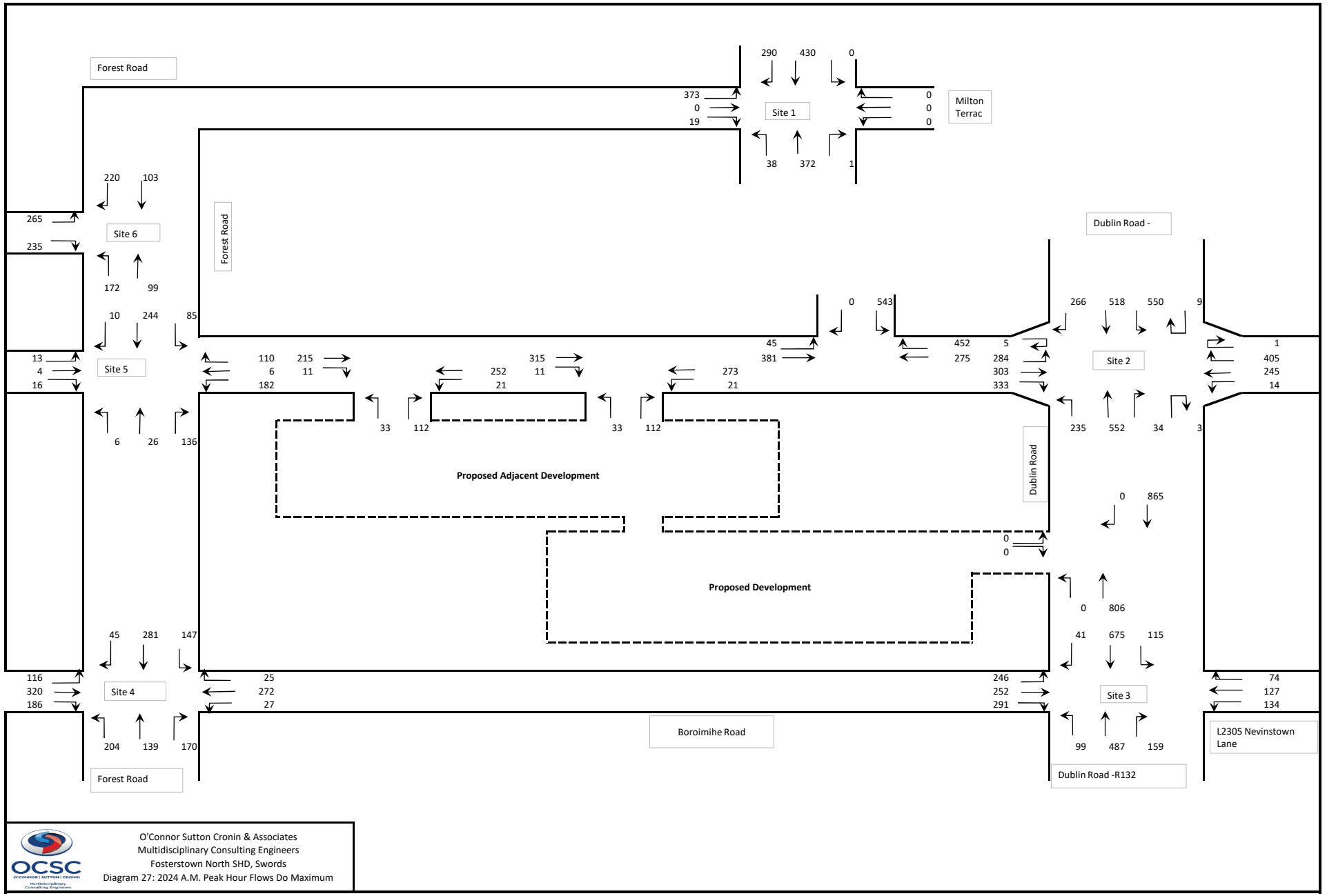

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Diagram 27: 2024 A.M. Peak Hour Flows Do Maximum

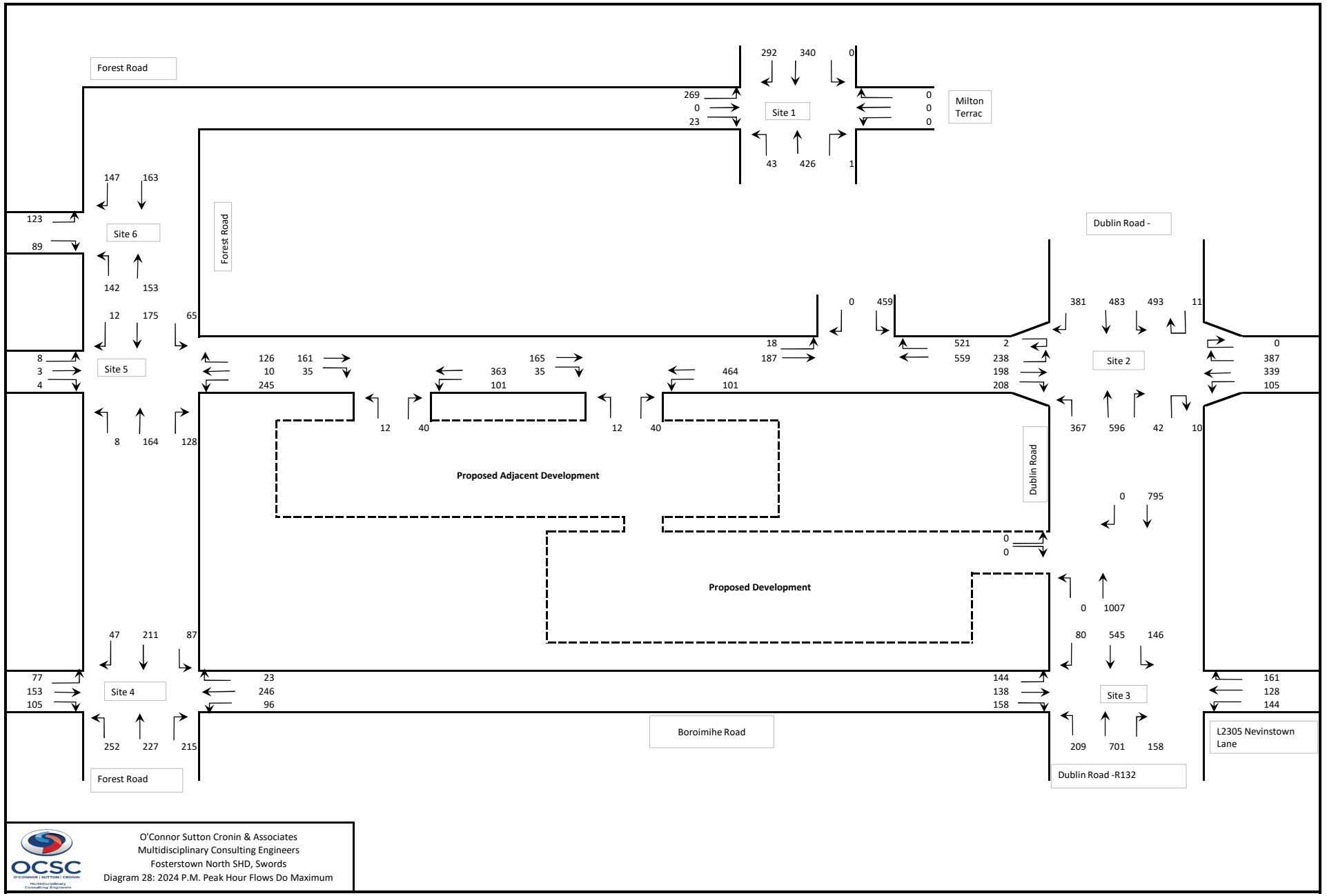

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Diagram 28: 2024 P.M. Peak Hour Flows Do Maximum

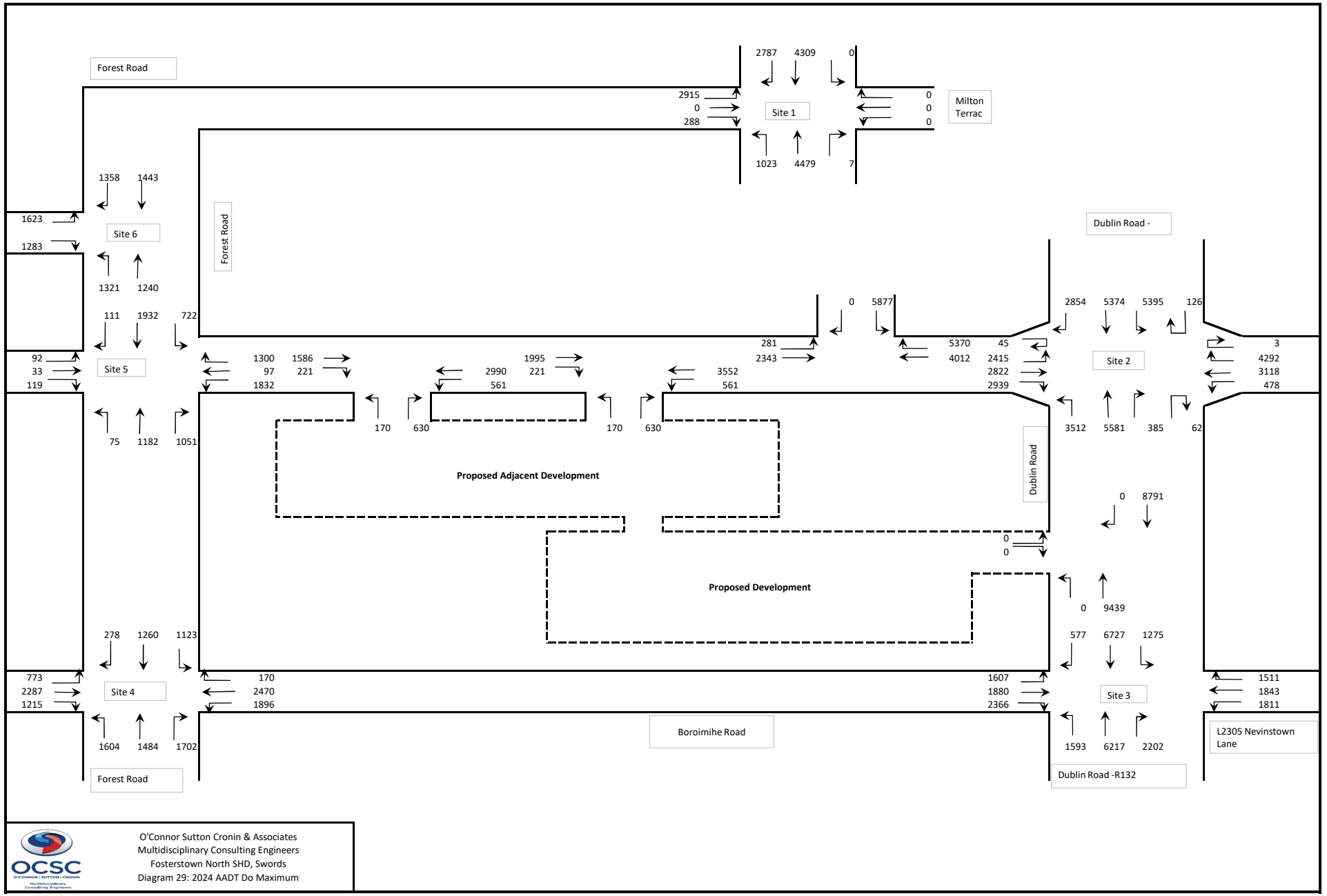

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Diagram 29: 2024 AADT Do Maximum

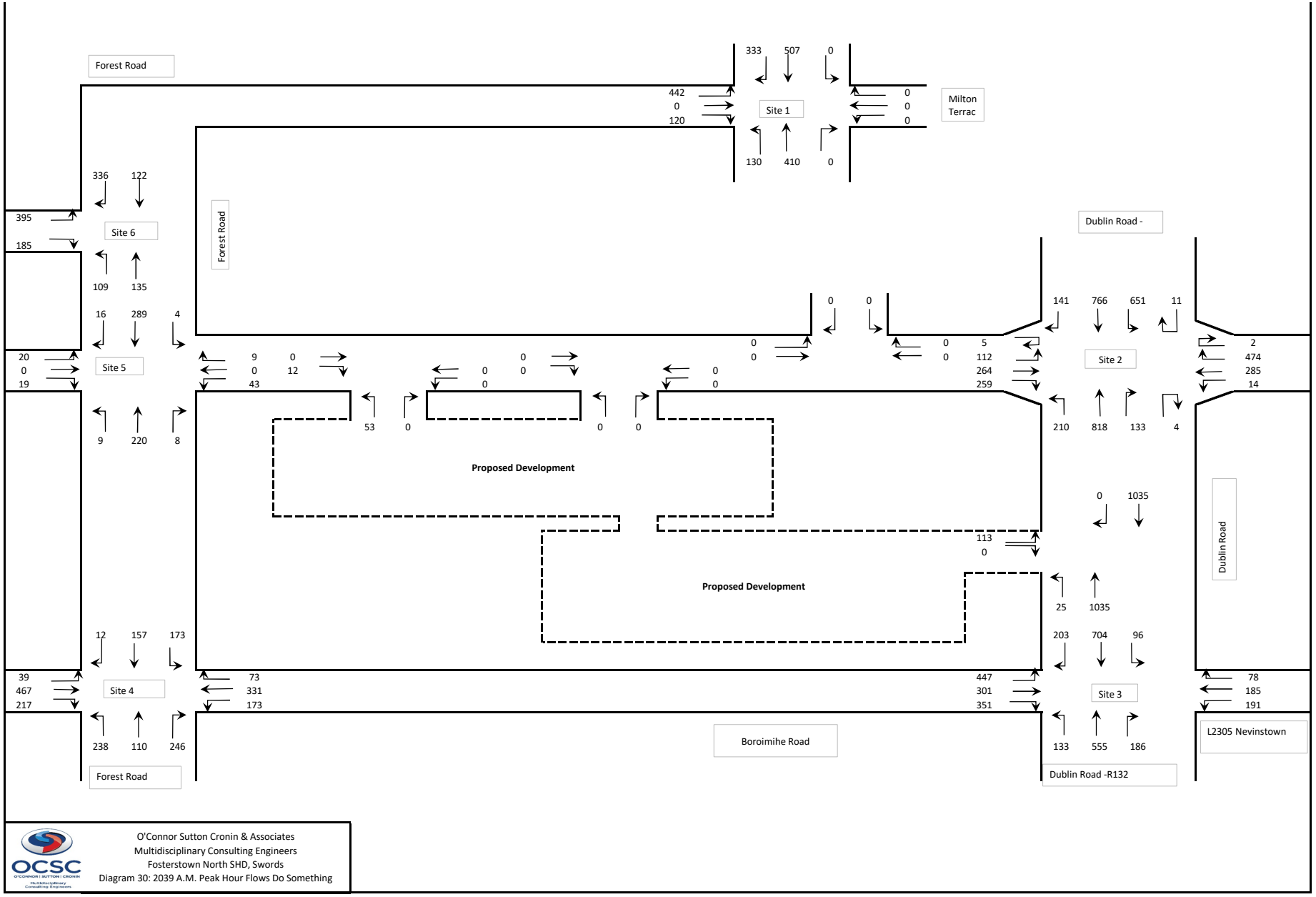

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Diagram 30: 2039 A.M. Peak Hour Flows Do Something

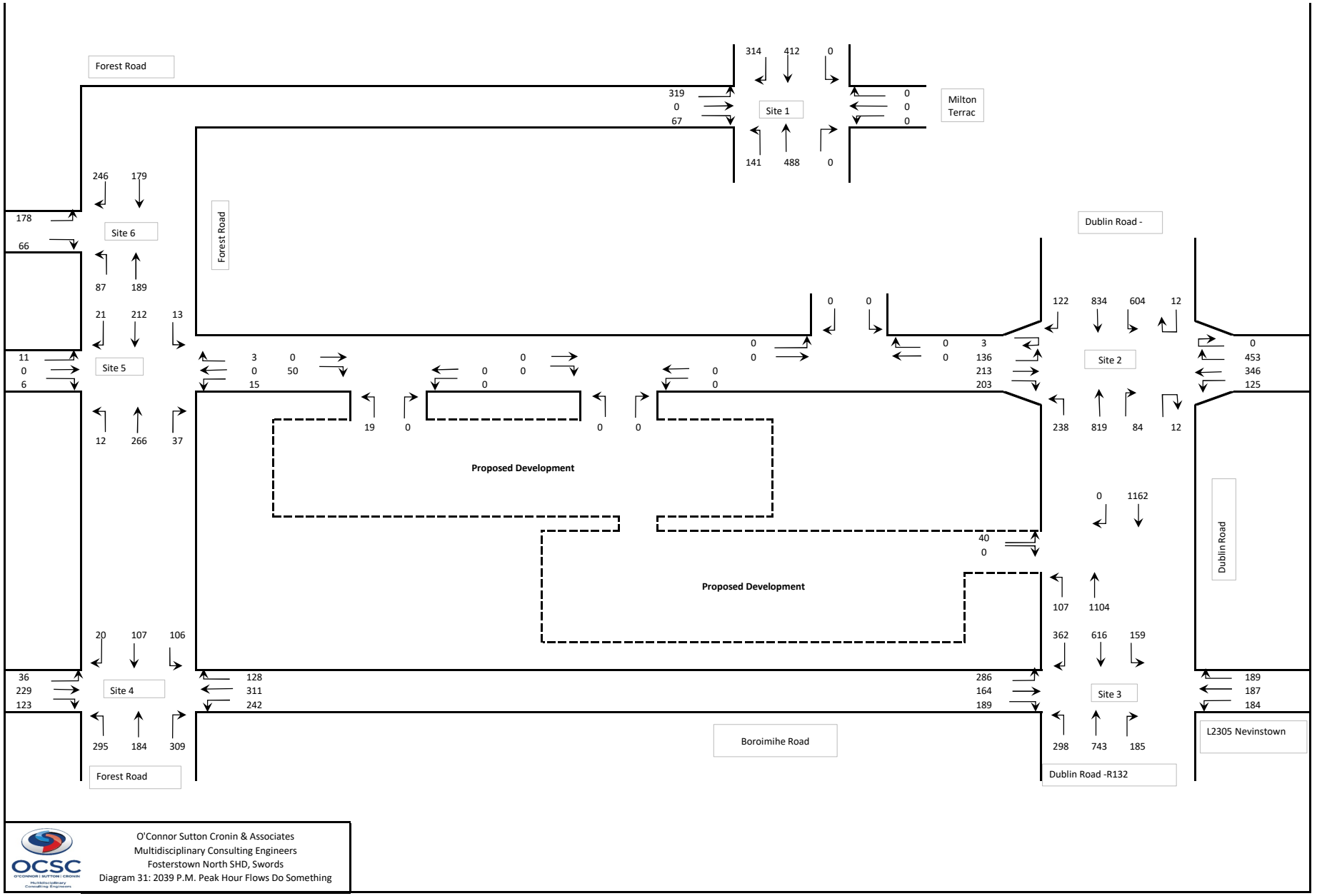

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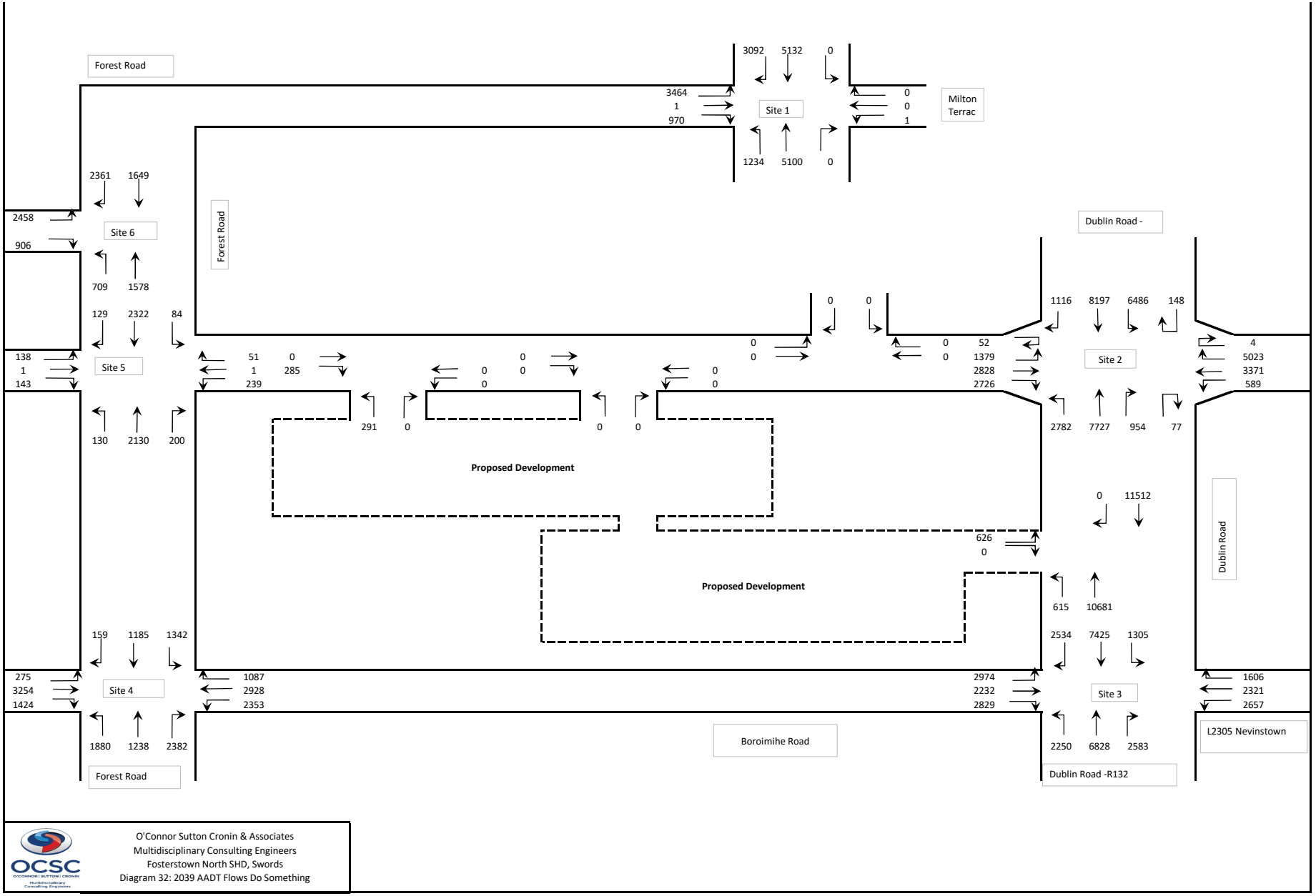
Diagram 31: 2039 P.M. Peak Hour Flows Do Something



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Fosterstown North SHD, Swords
Diagram 32: 2039 AADT Flows Do Something

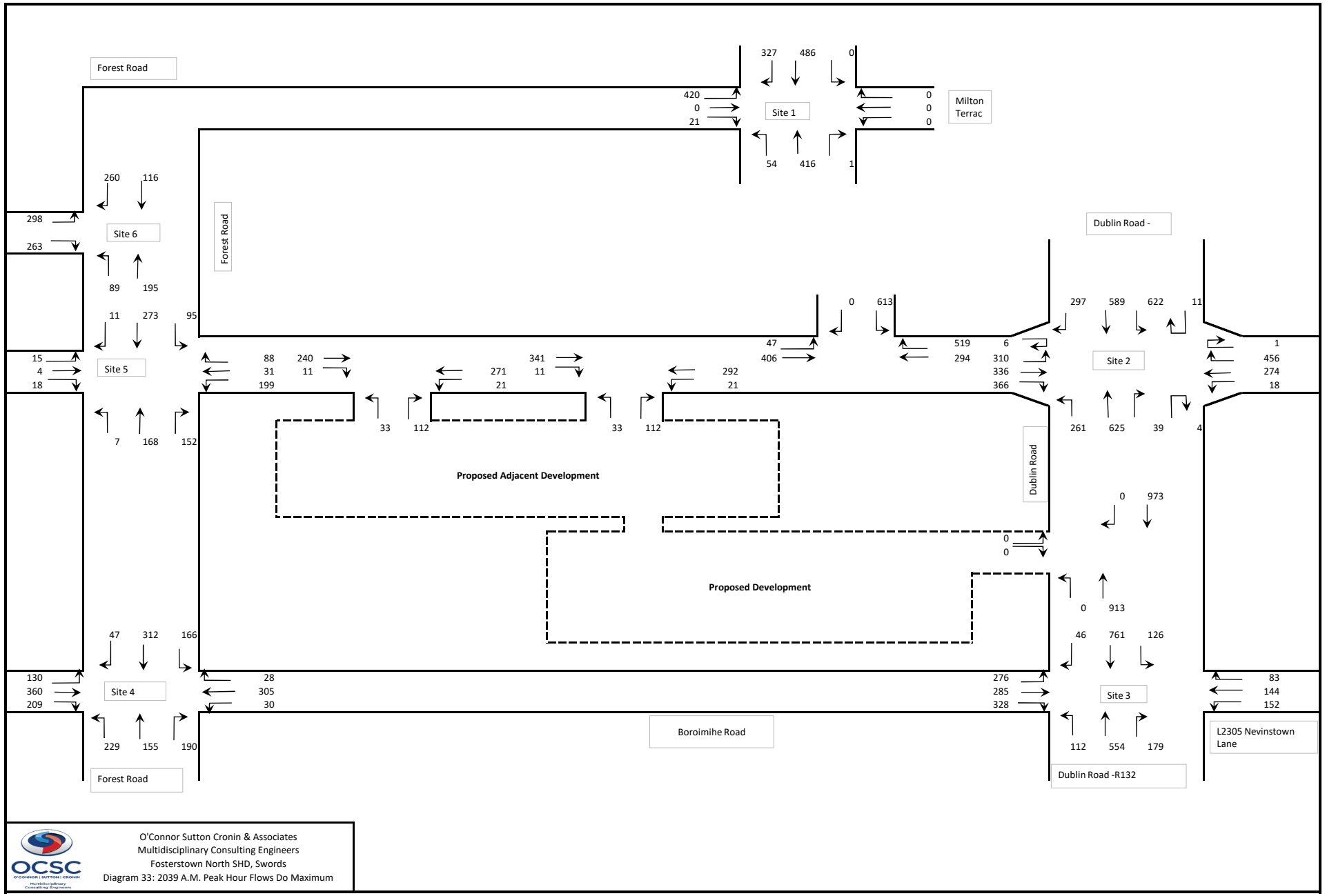

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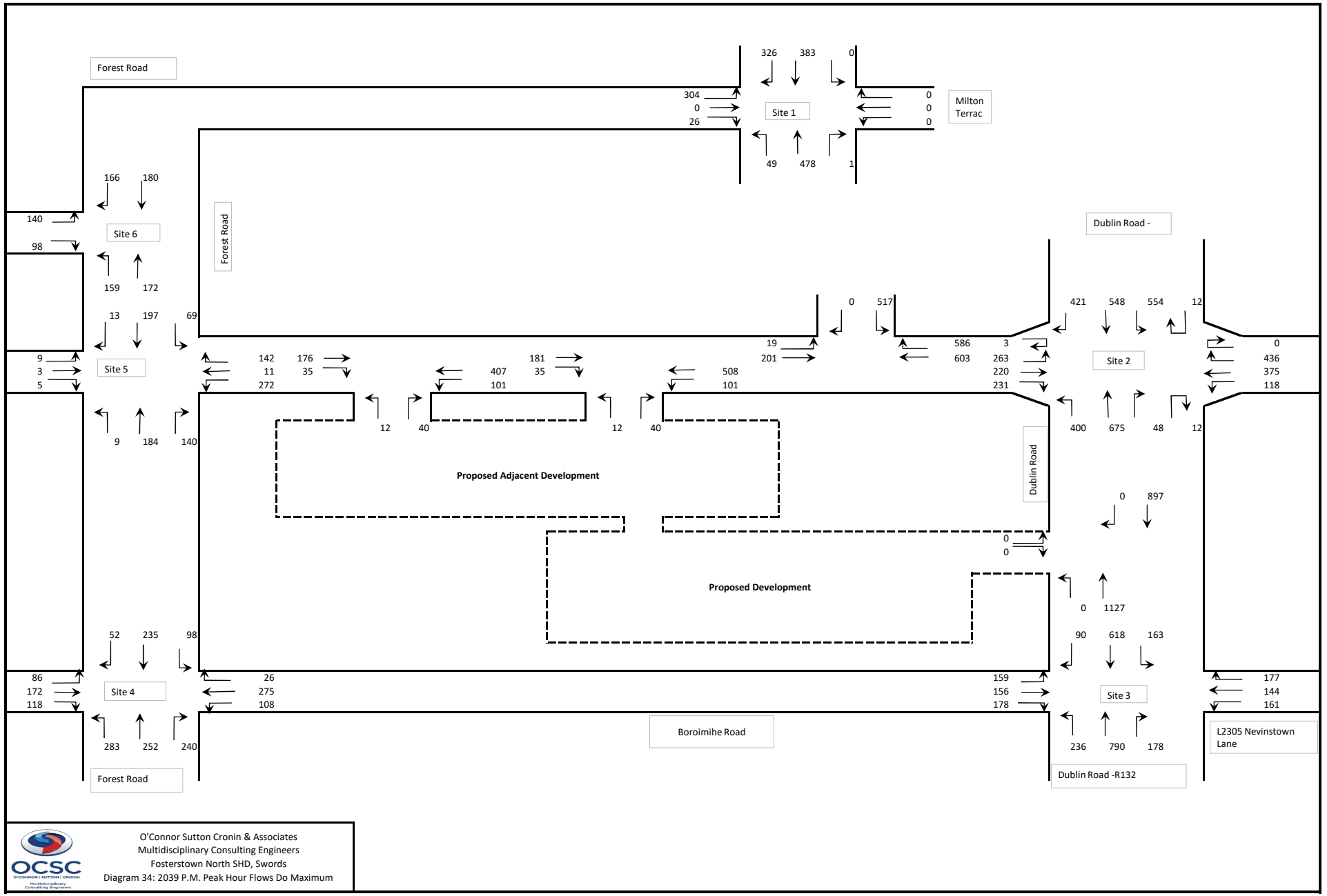
Diagram 33: 2039 A.M. Peak Hour Flows Do Maximum



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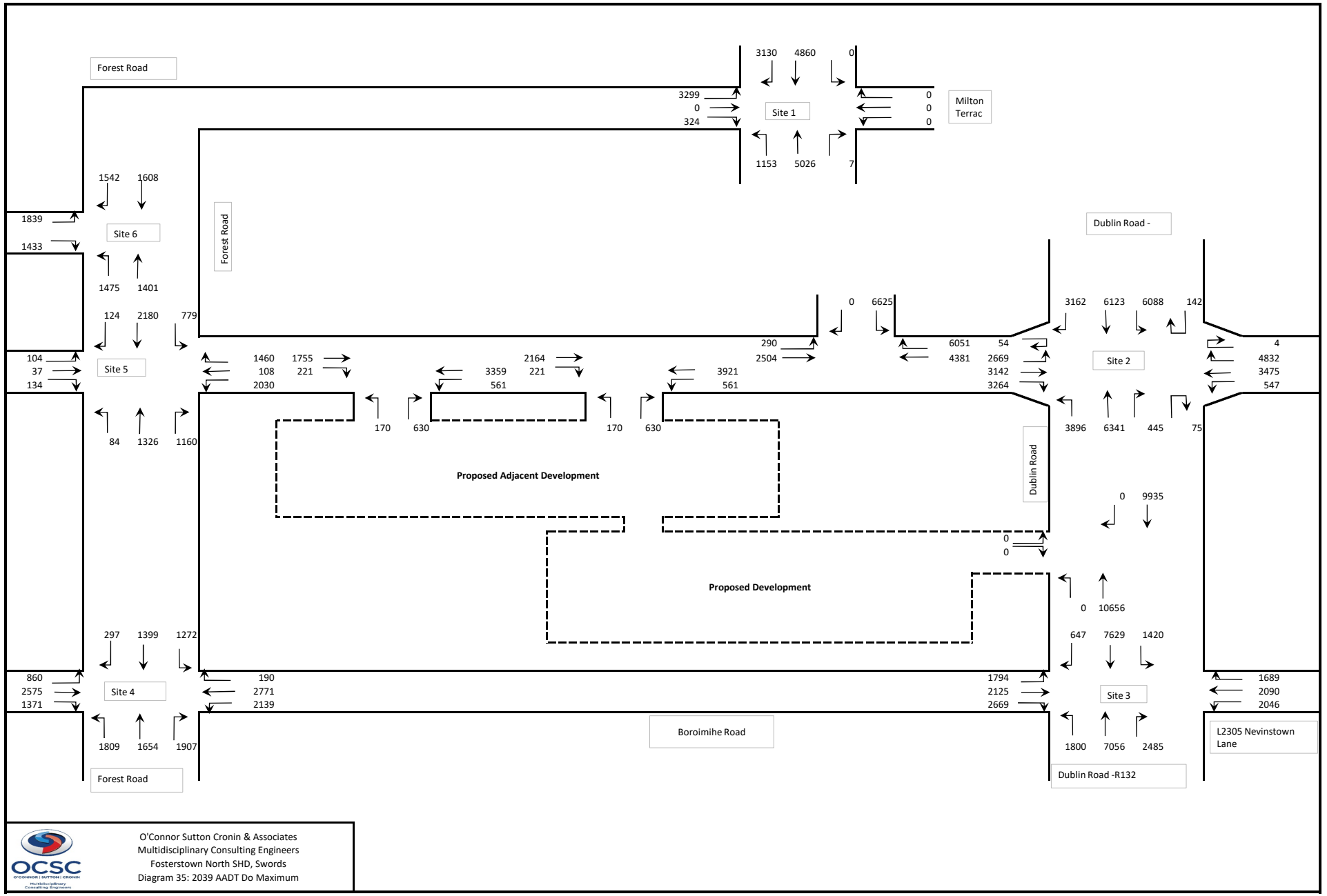
Fosterstown North SHD, Swords
Diagram 34: 2039 P.M. Peak Hour Flows Do Maximum



O'Connor Sutton Cronin & Associates
Multidisciplinary Consulting Engineers
Fosterstown North SHD, Swords
Diagram 35: 2039 AADT Do Maximum

OCSC
O'CONNOR | SUTTON | CRONIN
Multidisciplinary
Consulting Engineers

APPENDIX C: TRICS OUTPUT FILES

Calculation Reference: AUDIT-322901-191031-1010

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	DN	DONEGAL	1 days

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

Secondary 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: Number of dwellings
Actual Range: 9 to 98 (units:)
Range Selected by User: 4 to 4334 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 08/07/19

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
Thursday	1 days

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

Selected survey types:

Manual count	6 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:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	5

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	6

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	6 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
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	1 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	1 days
50,001 to 75,000	2 days
125,001 to 250,000	3 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	2 days
1.1 to 1.5	3 days
1.6 to 2.0	1 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	5 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	6 days

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

LIST OF SITES relevant to selection parameters

1 CA-03-A-05 DETACHED HOUSES CAMBRIDGESHIRE
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

2 CH-03-A-11 TOWN HOUSES CHESHIRE
LONDON ROAD
NORTHWICH
LEFTWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 24
Survey date: THURSDAY *06/06/19* *Survey Type: MANUAL*

3 DN-03-A-07 DETACHED & SEMI-DETACHED DONEGAL
ST ORANS ROAD
BUNCRANA

Edge of Town Centre
Residential Zone
Total Number of dwellings: 9
Survey date: WEDNESDAY *29/05/19* *Survey Type: MANUAL*

4 NF-03-A-01 SEMI DET. & BUNGALOWS NORFOLK
YARMOUTH ROAD
CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

5 NF-03-A-02 HOUSES & FLATS NORFOLK
DEREHAM ROAD
NORWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 98
Survey date: MONDAY *22/10/12* *Survey Type: MANUAL*

6 NY-03-A-08 TERRACED HOUSES NORTH YORKSHIRE
NICHOLAS STREET
YORK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 21
Survey date: MONDAY *16/09/13* *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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AG-03-A-01	No train
AN-03-A-07	Level of parking nearby
AN-03-A-08	No train
CA-03-A-04	Number of off site parking
CB-03-A-05	Number of off site parking
CH-03-A-08	Level of off site parking
DH-03-A-01	Level of off site parking
DL-03-A-07	No train near the proposed development
DL-03-A-08	No train near the proposed development
DN-03-A-05	Low level of public transport
DV-03-A-01	Level of off site parking
DV-03-A-02	No train near the proposed development
DV-03-A-03	No train near the proposed development
FA-03-A-01	No train near the proposed development
FA-03-A-02	No train near the proposed development
GA-03-A-04	No train near the proposed development
HC-03-A-17	No train near the proposed development
HC-03-A-18	No train near the proposed development
HC-03-A-19	No train near the proposed development
HC-03-A-20	No train near the proposed development

MANUALLY DESELECTED SITES (Cont.)

Site Ref	Reason for Deselection
HI-03-A-14	Level of off site parking
HO-03-A-02	high level of public transport
KC-03-A-03	Level of off site parking
KC-03-A-06	Level of off site parking
LC-03-A-30	No train near the proposed development
LN-03-A-03	Level of off site parking
LN-03-A-04	Level of off site parking
LT-03-A-01	No Public Transport
LT-03-A-02	No Public Transport
MA-03-A-01	No bus
MS-03-A-03	No train near the proposed development
NE-03-A-03	No Public Transport
NY-03-A-06	Level of off site parking
NY-03-A-09	No train near the proposed development
NY-03-A-12	No train near the proposed development
NY-03-A-13	Level of off site parking
PK-03-A-01	No train near the proposed development
PK-03-A-01	No train near the proposed development
PS-03-A-01	No train near the proposed development
PS-03-A-02	No train near the proposed development
RO-03-A-02	No Public Transport
RO-03-A-04	No Public Transport
SF-03-A-04	Level of off site parking
SF-03-A-07	No train near the proposed development
ST-03-A-06	Level of off site parking
SY-03-A-01	No train near the proposed development
TW-03-A-02	Level of off site parking
WC-03-A-02	Level of off site parking
WF-03-A-02	High level of public transport
WK-03-A-01	Level of off site parking
WL-03-A-02	Level of off site parking
WM-03-A-05	Level of off site parking
WX-03-A-01	Level of off site parking

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	6	35	0.053	6	35	0.217	6	35	0.270
08:00 - 09:00	6	35	0.135	6	35	0.377	6	35	0.512
09:00 - 10:00	6	35	0.130	6	35	0.155	6	35	0.285
10:00 - 11:00	6	35	0.072	6	35	0.101	6	35	0.173
11:00 - 12:00	6	35	0.155	6	35	0.111	6	35	0.266
12:00 - 13:00	6	35	0.126	6	35	0.106	6	35	0.232
13:00 - 14:00	6	35	0.121	6	35	0.164	6	35	0.285
14:00 - 15:00	6	35	0.193	6	35	0.188	6	35	0.381
15:00 - 16:00	6	35	0.266	6	35	0.208	6	35	0.474
16:00 - 17:00	6	35	0.295	6	35	0.246	6	35	0.541
17:00 - 18:00	6	35	0.256	6	35	0.164	6	35	0.420
18:00 - 19:00	6	35	0.222	6	35	0.184	6	35	0.406
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.024			2.221			4.245

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:	9 - 98 (units:)
Survey date date range:	01/01/11 - 08/07/19
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	53

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-322901-191031-1048

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	SK	SOUTHWARK	1 days
02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	NT	NOTTINGHAMSHIRE	2 days
09	NORTH		
	CB	CUMBRIA	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	MG	MONAGHAN	1 days

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

Secondary 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: Number of dwellings
Actual Range: 28 to 340 (units:)
Range Selected by User: 6 to 493 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 21/06/19

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	2 days
Friday	3 days

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

Selected survey types:

Manual count	8 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:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	1

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:

Built-Up Zone	1
No Sub Category	7

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	8 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	3 days
10,001 to 15,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	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	2 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days
500,001 or More	2 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	2 days
1.1 to 1.5	6 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:

No	8 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	7 days
6b (High) Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1 BD-03-C-03 BLOCKS OF FLATS BEDFORDSHIRE
COURT DRIVE
DUNSTABLE

Edge of Town Centre
No Sub Category
Total Number of dwellings: 146
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

2 CA-03-C-02 BLOCK OF FLATS CAMBRIDGESHIRE
WESTFIELD ROAD
PETERBOROUGH
NETHERTON
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 44
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

3 CB-03-C-02 BLOCK OF FLATS CUMBRIA
BRIDGE LANE
PENRITH

Edge of Town
No Sub Category
Total Number of dwellings: 35
Survey date: WEDNESDAY *11/06/14* *Survey Type: MANUAL*

4 DL-03-C-08 FLATS DUBLIN
FINGLAS ROAD
DUBLIN
FINGLAS
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 340
Survey date: FRIDAY *30/09/11* *Survey Type: MANUAL*

5 MG-03-C-01 BLOCK OF FLATS MONAGHAN
MALL ROAD
MONAGHAN

Edge of Town Centre
No Sub Category
Total Number of dwellings: 28
Survey date: FRIDAY *06/09/13* *Survey Type: MANUAL*

6 NT-03-C-01 HOUSES (SPLIT INTO FLATS) NOTTINGHAMSHIRE
LAWRENCE WAY
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 56
Survey date: TUESDAY *08/11/16* *Survey Type: MANUAL*

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

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

LIST OF SITES relevant to selection parameters (Cont.)

8 SK-03-C-01 BLOCK OF FLATS SOUTHWARK
PARK STREET
SOUTHWARK

Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 53
Survey date: FRIDAY *19/09/14* *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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AN-03-C-02	Level of off site parking
BD-03-C-01	No train near the proposed development
BD-03-C-02	Level of off site parking
BE-03-C-01	High level of public transport
BE-03-C-02	No train near the proposed development
BT-03-C-01	No train near the proposed development
BT-03-C-02	No train near the proposed development
CA-03-C-03	Low level of public transport
CB-03-C-03	Level of off site parking
CO-03-C-01	No train near the proposed development
DC-03-C-02	Level of off site parking
DL-03-C-09	Level of off site parking
DL-03-C-10	No train near the proposed development
DL-03-C-12	Level of off site parking
DL-03-C-14	No train near the proposed development
DL-03-C-15	No train near the proposed development
DL-03-C-16	No train near the proposed development
DV-03-C-01	No train near the proposed development
EB-03-C-01	Level of off site parking
EN-03-C-01	No train near the proposed development
EN-03-C-02	Level of off site parking
EN-03-C-03	No train near the proposed development
ES-03-C-01	No train near the proposed development
EX-03-C-01	No train near the proposed development
EX-03-C-02	No train near the proposed development
GA-03-C-01	Level of off site parking
HC-03-C-01	No train near the proposed development
HG-03-C-02	No train near the proposed development
HK-03-C-03	No train near the proposed development
HO-03-C-03	No train near the proposed development
HV-03-C-01	No train near the proposed development
HV-03-C-02	No train near the proposed development
IS-03-C-03	No train near the proposed development
IS-03-C-04	No train near the proposed development
IS-03-C-05	No train near the proposed development
IS-03-C-06	No train near the proposed development
IS-03-C-07	No train near the proposed development
KI-03-C-03	No train near the proposed development
KN-03-C-03	No train near the proposed development
LU-03-C-01	Level of off site parking
LU-03-C-02	No Public Transport
LU-03-C-03	No Public Transport
MS-03-C-02	No train near the proposed development
MS-03-C-03	Level of off site parking
NF-03-C-01	No train near the proposed development
RD-03-C-03	No train near the proposed development
RD-03-C-04	No train near the proposed development
RI-03-C-01	Level of off site parking
SA-03-C-01	No train near the proposed development
SF-03-C-01	No train near the proposed development
SF-03-C-03	No train near the proposed development
SK-03-C-02	No train near the proposed development
SR-03-C-01	No train near the proposed development
SR-03-C-02	No train near the proposed development
TV-03-C-02	Level of off site parking
WA-03-C-01	Level of off site parking
WH-03-C-01	No train near the proposed development
WM-03-C-04	No train near the proposed development

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	8	105	0.044	8	105	0.179	8	105	0.223
08:00 - 09:00	8	105	0.039	8	105	0.176	8	105	0.215
09:00 - 10:00	8	105	0.070	8	105	0.097	8	105	0.167
10:00 - 11:00	8	105	0.055	8	105	0.059	8	105	0.114
11:00 - 12:00	8	105	0.049	8	105	0.043	8	105	0.092
12:00 - 13:00	8	105	0.059	8	105	0.065	8	105	0.124
13:00 - 14:00	8	105	0.063	8	105	0.056	8	105	0.119
14:00 - 15:00	8	105	0.044	8	105	0.057	8	105	0.101
15:00 - 16:00	8	105	0.094	8	105	0.055	8	105	0.149
16:00 - 17:00	8	105	0.125	8	105	0.060	8	105	0.185
17:00 - 18:00	8	105	0.176	8	105	0.063	8	105	0.239
18:00 - 19:00	8	105	0.136	8	105	0.061	8	105	0.197
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.954			0.971			1.925

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:	28 - 340 (units:)
Survey date date range:	01/01/11 - 21/06/19
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	58

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.

APPENDIX D: MODEL CALIBRATION SUMMARY

Queue Calibration

Site 1 Queue Length
AM Queue

Arm / Traffic stream	Survey Queue	Modelled Queue
Main Street N	13.25	9.45
Main Street N	13.58	9.54
Main Street South	17.66	14.97
Forest Road	30.4	30.15

Site 1 PM Queue (PCU)

Arm / Traffic stream	Survey Queue	Modelled Queue
Main Street N	9.38	6.97
Main Street N	12.5	8.96
Main Street South	20	18.35
Forest Road	18.42	12.99

Site 2 Queue Length
Am Queue (PCU)

Arm / Traffic stream	Survey Queue	Modelled Queue
R132 (N) - A	0.528	1.1
R125 - B	4.88	1.8
R132 (S) - C	2.5	0.6
R836 - D	4.2	0.9

Pm Queue (PCU)

Arm / Traffic stream	Survey Queue	Modelled Queue
R132 (N) - A	0.64	1
R125 - B	7.12	2.8
R132 (S) - C	3.4	0.7
R836 - D	3.92	0.7

Site 3 Queue Length

AM Peak

Arm / Traffic stream	Survey Queue	Modelled Queue
R132 N	0.00	1.45
	3.42	2.92
	22.64	20.30 +
	8.42	6.89
Nevinstown Lane e	12.18	13.97
	3.42	1.68
R132 S	10.25	8.03
	15.58	10.71
evinstown Lane	9.92	8.10
	22.25	20.01

PM Peak

Arm / Traffic stream	Survey Queue	Modelled Queue
R132 N	0.42	1.46
	4.42	2.92
	21.50	15.05
	14.58	27.69 +
Nevinstown Lane e	25.00	9.18
	14.00	2.92
R132 S	13.67	12.14
	28.58	59.07
evinstown Lane	6.17	13.12
	10.58	5.35
	16.50	10.51

Site 4 Queue Length				**Site 4 Queue Length**		
AM Peak				**PM Peak**		
Arm / Traffic stream	Survey Queue	Modelled Queue		Arm / Traffic stream	Survey Queue	Modelled Queue
Forest Road N	13.17	10.69		R132 N	7.83	6.42
	0.67	0.27			1.25	0.46
L2300	20.08	11.67		Nevinstown Lane e	23.17	12.23
	2.42	1.61			2.58	2.69
Forest Road S	15.25	10.36		R132 S	12.92	14.17
	7.50	6.25			7.67	7.30
Rathingle Road	11.86	12.31		Nevinstown Lane w	8.33	4.70
	6.75	6.70			5.25	3.40

Site 5 Queue Length				Site 5 Queue Length		
AM Peak				**PM Peak**		
Arm / Traffic stream	Survey Queue	Modelled Queue		Arm / Traffic stream	Survey Queue	Modelled Queue
Forest Road N	0.5	0		Forest Road N	0.25	0
Hawthorn Park	0.334	0		Hawthorn Park	0.42	0
Forest Road S	-	-		Forest Road S	-	-

Site 6 Queue Length				Site 6 Queue Length		
AM Peak				**PM Peak**		
Arm / Traffic stream	Survey Queue	Modelled Queue		Arm / Traffic stream	Survey Queue	Modelled Queue
Forest Road N	14	2.83		Forest Road N	5.75	6.29
River Valley Road	5	4.67		River Valley Road	4.08	4.46
Forest Road S	11	11.09		Forest Road S	5.34	4.11

APPENDIX E: MODEL OUTPUT FILES

TRANSYT 15

Filename: Junction 1 2024 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 15:05:48

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

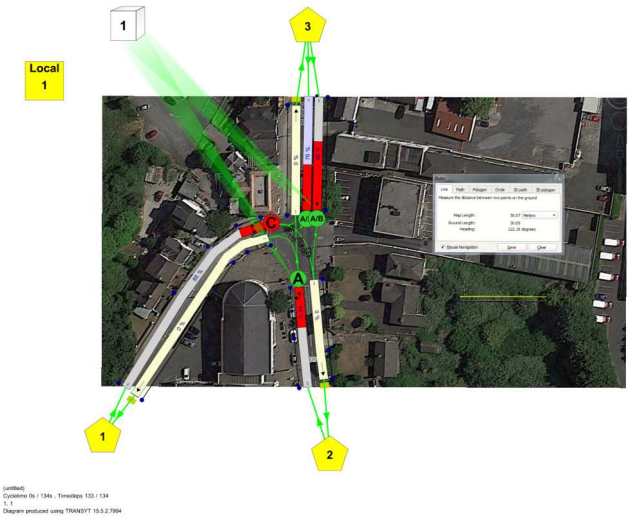
Units

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	PCU	PCU	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)
Cyclelime 0s / 134s , Timesteps 133 / 134
1: 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - Junction 1 2024 DN
D1 - AM PEAK*

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 (PCU-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	24/05/2021 15:05:43	24/05/2021 15:05:43	07:45	134	356.32	23.68	85.33	1/1	0	0	1/1	5/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2024 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				07:45	

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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1580	✓		Normal	
2	1				180.00	✓	Sum of lanes	1944	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	100	6.00	✓	1580
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	25	6.00	✓	1944
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	132	36	38	1	7
	2	✓	2	B	36	64	28	1	7
	3	✓	3	C	69	117	48	1	7
	4	✓	4	D	117	132	15	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
07:45-08:45	1	1	85	5	493	1580	48	56.05	19.15	110.13	109.00	6.34	115.34
	2	1	84	7	476	1944	38	60.43	18.62	59.48	113.46	6.19	119.64
	3	1	76	19	300	795	66	60.33	11.45	82.33	71.39	3.80	75.19
	5	1	0	Unrestricted	418	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	559	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	745	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	48	88	453	1895	66	23.75	11.29	81.16	42.43	3.71	46.14

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M m qu (P
1	1			1	C		493 <	1580	48	0.00	85	5	68.05	56.05	102.63	19.
2	1			1	A		476	1944	38	0.00	84	7	82.03	60.43	103.65	18
3	1			1	A	B	300	795	66	0.00	76	19	69.93	60.33	101.15	11
5	1						418	Unrestricted	134	61.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						559	Unrestricted	134	13.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						745	Unrestricted	134	38.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	453	1895	66	0.00	48	88	33.35	23.75	65.25	11

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	313.88	34.14	9.19	23.68	336.28	20.04	0.00	356.32
Bus	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
Pedestrians								
TOTAL	313.88	34.14	9.19	23.68	336.28	20.04	0.00	356.32

- *< = 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 1 2024 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 15:06:32

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

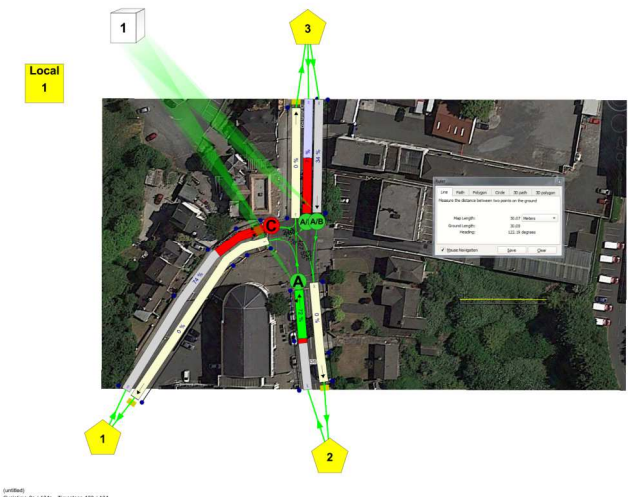
Units

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	PCU	PCU	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)
Cyclotime 0s / 134s , Timesteps 133 / 134
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - Junction 1 2024 DN
D2 - PM PEAK*

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 (PCU-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	24/05/2021 15:06:25	24/05/2021 15:06:25	17:00	134	259.47	17.16	73.50	1/1	0	0	1/1	5/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2024 DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1580	✓		Normal	
2	1				180.00	✓	Sum of lanes	1957	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	100	6.00	✓	1580
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	22	6.00	✓	1957
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	104	21	51	1	7
	2	✓	2	B	21	43	22	1	7
	3	✓	3	C	48	86	38	1	7
	4	✓	4	D	86	104	18	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	74	22	338	1580	38	53.40	12.26	70.48	71.19	4.08	75.27
	2	1	72	25	545	1957	51	40.71	18.01	57.52	87.52	5.98	93.49
	3	1	71	27	275	701	73	55.96	10.24	73.63	60.70	3.39	64.10
	5	1	0	Unrestricted	393	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	408	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	710	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	34	167	353	1895	73	17.39	7.24	52.06	24.21	2.39	26.60

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	Me m qu (P
1	1			1	C		338	1580	38	0.00	74	22	65.40	53.40	96.25	12.
2	1			1	A		545	1957	51	0.00	72	25	62.31	40.71	87.48	18.
3	1			1	A	B	275	701	73	0.00	71	27	65.56	55.96	98.42	10.
5	1						393	Unrestricted	134	54.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						408	Unrestricted	134	21.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						710	Unrestricted	134	36.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	353	1895	73	0.00	34	167	26.99	17.39	54.11	7.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	286.63	26.71	10.73	17.16	243.62	15.85	0.00	259.47
Bus	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
Pedestrians								
TOTAL	286.63	26.71	10.73	17.16	243.62	15.85	0.00	259.47

- *< = 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***

TRANSYT 15

Filename: Junction 1 2023 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:50:33

File summary

File description

File title	Junction 1 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

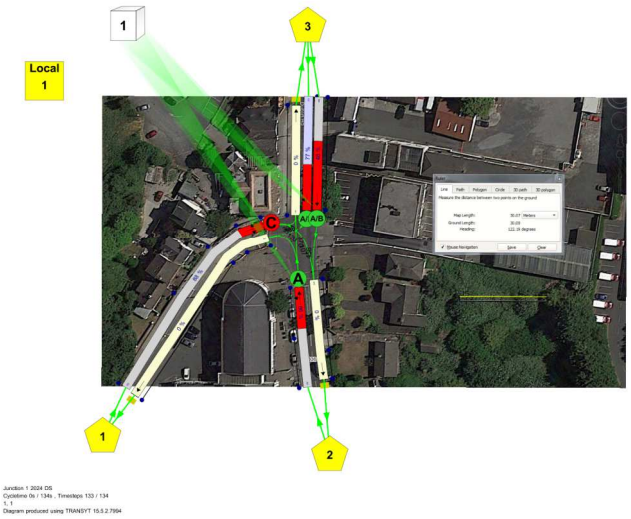
Units

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	PCU	PCU	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



Junction 1 2024 DS
Cyclotime 0s / 134s , Timesteps 133 / 134
1: 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - Junction 1 2024 DS
D1 - AM PEAK*

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 (PCU-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	24/05/2021 14:50:20	24/05/2021 14:50:20	07:45	134	381.97	25.43	88.33	1/1	0	0	1/1	5/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2024 DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				07:45	

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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1548	✓		Normal	
2	1				180.00	✓	Sum of lanes	1948	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.00	✓	1548
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	24	6.00	✓	1948
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	132	36	38	1	7
	2	✓	2	B	36	64	28	1	7
	3	✓	3	C	69	117	48	1	7
	4	✓	4	D	117	132	15	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
07:45-08:45	1	1	88	2	500	1548	48	61.37	20.35	117.03	121.03	6.73	127.76
	2	1	86	4	490	1948	38	63.57	19.68	62.86	122.87	6.53	129.41
	3	1	77	16	301	779	66	62.61	11.71	84.15	74.34	3.88	78.22
	5	1	0	Unrestricted	421	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	563	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	763	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	48	87	456	1895	66	23.82	11.37	81.72	42.84	3.75	46.59

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M m qu (P
1	1			1	C		500 <	1548	48	0.00	88	2	73.37	61.37	107.35	20.
2	1			1	A		490	1948	38	0.00	86	4	85.17	63.57	106.35	19
3	1			1	A	B	301	779	66	0.00	77	16	72.21	62.61	102.91	11
5	1						421	Unrestricted	134	61.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						563	Unrestricted	134	13.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						763	Unrestricted	134	38.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	456	1895	66	0.00	48	87	33.42	23.82	65.54	11

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	319.03	36.06	8.85	25.43	361.08	20.90	0.00	381.97
Bus	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
Pedestrians								
TOTAL	319.03	36.06	8.85	25.43	361.08	20.90	0.00	381.97

- *< = 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 1 2023 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:48:56

File summary

File description

File title	Junction 1 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

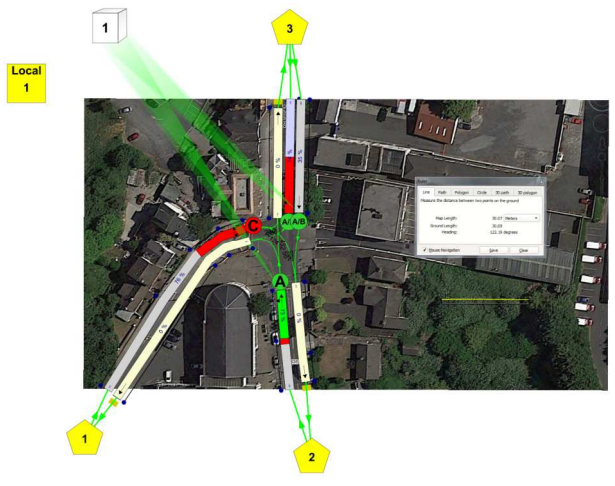
Units

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	PCU	PCU	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



Junction 1 2024 DS
Cyclotime 0s / 134s , Timesteps 133 / 134
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - Junction 1 2024 DS
D2 - PM PEAK*

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 (PCU-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	24/05/2021 14:48:51	24/05/2021 14:48:51	17:00	134	273.11	18.07	76.35	1/1	0	0	1/1	5/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2024 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1548	✓		Normal	
2	1				180.00	✓	Sum of lanes	1957	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.00	✓	1548
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	22	6.00	✓	1957
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	104	21	51	1	7
	2	✓	2	B	21	43	22	1	7
	3	✓	3	C	48	86	38	1	7
	4	✓	4	D	86	104	18	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	76	18	344	1548	38	55.74	12.85	73.87	75.64	4.25	79.89
	2	1	73	23	556	1957	51	41.42	18.59	59.39	90.84	6.17	97.01
	3	1	74	22	280	687	73	58.76	10.65	76.54	64.89	3.54	68.43
	5	1	0	Unrestricted	404	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	423	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	718	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	35	158	365	1895	73	17.56	7.60	54.60	25.28	2.50	27.79

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M m qu (P
1	1			1	C		344	1548	38	0.00	76	18	67.74	55.74	98.60	12
2	1			1	A		556	1957	51	0.00	73	23	63.02	41.42	88.48	18
3	1			1	A	B	280	687	73	0.00	74	22	68.36	58.76	100.74	10
5	1						404	Unrestricted	134	54.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						423	Unrestricted	134	17.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						718	Unrestricted	134	36.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	365	1895	73	0.00	35	158	27.16	17.56	54.69	7.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	293.02	27.84	10.52	18.07	256.65	16.46	0.00	273.11
Bus	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
Pedestrians								
TOTAL	293.02	27.84	10.52	18.07	256.65	16.46	0.00	273.11

- *< = 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

Filename: Junction 1 2024 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 15:01:12

File summary

File description

File title	Junction 1 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

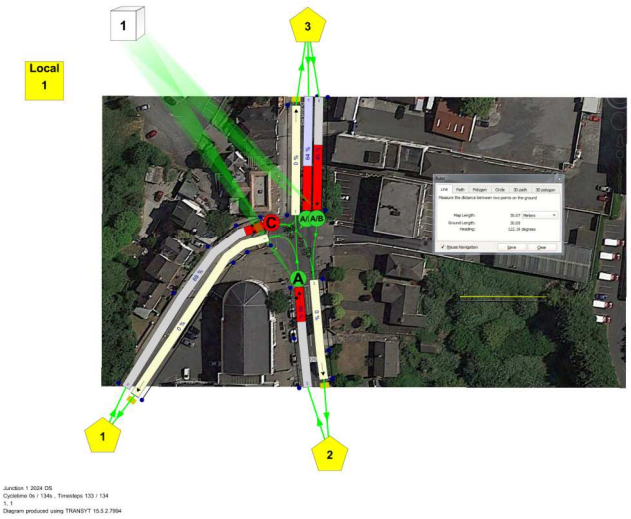
Units

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	PCU	PCU	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



Junction 1 2024 DS
Cyclotime 0s / 134s , Timesteps 133 / 134
1: 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - Junction 1 2024 DM
D1 - AM PEAK*

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 (PCU-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	24/05/2021 15:01:05	24/05/2021 15:01:05	07:45	134	256.01	16.91	69.40	2/1	0	0	2/1	5/1	2/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2024 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				07:45	

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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1548	✓		Normal	
2	1				180.00	✓	Sum of lanes	2020	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.00	✓	1548
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	9	6.00	✓	2020
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	132	36	38	1	7
	2	✓	2	B	36	64	28	1	7
	3	✓	3	C	69	117	48	1	7
	4	✓	4	D	117	132	15	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
07:45-08:45	1	1	69	30	392	1548	48	43.15	13.07	75.16	66.71	4.35	71.06
	2	1	69	30	408	2020	38	49.03	14.26	45.56	78.91	4.72	83.62
	3	1	64	42	290	913	66	48.19	9.97	71.66	55.12	3.32	58.44
	5	1	0	Unrestricted	328	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	449	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	743	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	45	98	430	1895	66	23.24	10.46	75.18	39.42	3.46	42.89

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	Me m qu (P
1	1			1	C		392	1548	48	0.00	69	30	55.15	43.15	88.40	13.
2	1			1	A		408	2020	38	0.00	69	30	70.63	49.03	92.19	14.
3	1			1	A	B	290	913	66	0.00	64	42	57.79	48.19	91.26	9.
5	1						328	Unrestricted	134	63.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						449	Unrestricted	134	34.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						743	Unrestricted	134	38.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	430	1895	66	0.00	45	98	32.84	23.24	64.24	10.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	273.53	26.03	10.51	16.91	240.17	15.84	0.00	256.01
Bus	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
Pedestrians								
TOTAL	273.53	26.03	10.51	16.91	240.17	15.84	0.00	256.01

- *< = 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***

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 1 2024 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:59:55

File summary

File description

File title	Junction 1 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

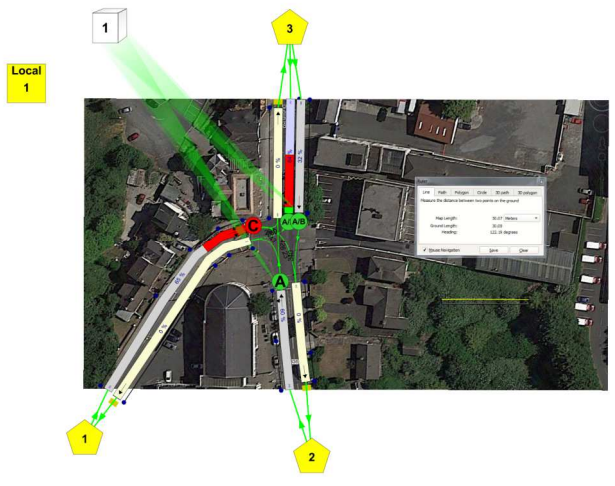
Units

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	PCU	PCU	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



Junction 1 2024 DS
Cyclotime 0s / 134s , Timesteps 133 / 134
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - Junction 1 2024 DM
D2 - PM PEAK*

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 (PCU-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	24/05/2021 14:58:48	24/05/2021 14:58:48	17:00	134	212.24	13.98	64.81	1/1	0	0	1/1	5/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2024 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1548	✓		Normal	
2	1				180.00	✓	Sum of lanes	2020	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.00	✓	1548
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	9	6.00	✓	2020
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	104	21	51	1	7
	2	✓	2	B	21	43	22	1	7
	3	✓	3	C	48	86	38	1	7
	4	✓	4	D	86	104	18	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	65	39	292	1548	38	48.75	10.08	57.95	56.15	3.34	59.49
	2	1	60	50	469	2020	51	36.08	14.25	45.53	66.74	4.74	71.48
	3	1	64	41	291	823	73	45.81	10.02	72.01	52.59	3.34	55.92
	5	1	0	Unrestricted	334	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	363	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	695	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	32	177	340	1895	73	17.20	6.97	50.12	23.07	2.29	25.35

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	Me m qu (P
1	1			1	C		292	1548	38	0.00	65	39	60.75	48.75	91.10	10.
2	1			1	A		469	2020	51	0.00	60	50	57.68	36.08	80.54	14.
3	1			1	A	B	291	823	73	0.00	64	41	55.41	45.81	91.46	10.
5	1						334	Unrestricted	134	56.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						363	Unrestricted	134	32.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						695	Unrestricted	134	36.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	340	1895	73	0.00	32	177	26.80	17.20	53.64	6.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	259.46	22.63	11.47	13.98	198.54	13.70	0.00	212.24
Bus	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
Pedestrians								
TOTAL	259.46	22.63	11.47	13.98	198.54	13.70	0.00	212.24

- *< = 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

Filename: Junction 1 2038 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:37:19

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

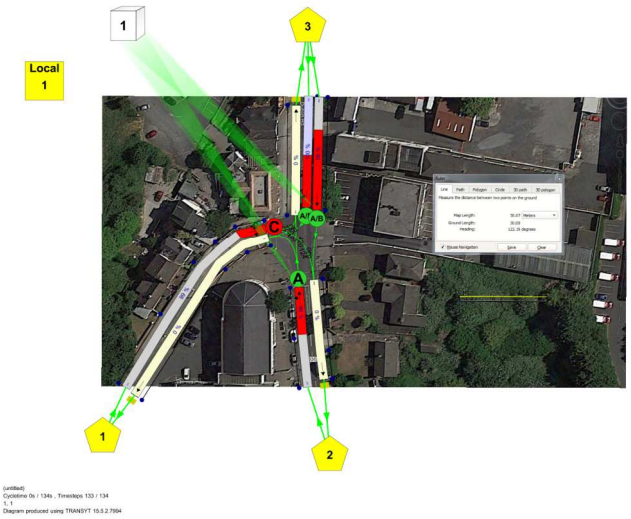
Units

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	PCU	PCU	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)
Cyclelime 0s / 134s , Timesteps 133 / 134
1: 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - Junction 1 2039 DN
D1 - AM PEAK*

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 (PCU-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	24/05/2021 14:37:13	24/05/2021 14:37:13	07:45	134	780.83	52.76	100.24	3/1	3	43	3/1	5/1	3/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2039 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				07:45	

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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1580	✓		Normal	
2	1				180.00	✓	Sum of lanes	1944	✓		Normal	
3	1				80.00	✓	Sum of lanes	1673	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	100	6.00	✓	1580
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	25	6.00	✓	1944
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	11.29	✓	1673
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	11.29	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	132	36	38	1	7
	2	✓	2	B	36	64	28	1	7
	3	✓	3	C	69	117	48	1	7
	4	✓	4	D	117	132	15	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
07:45-08:45	1	1	99	-9	574	1580	48	108.81	31.80	182.87	246.35	10.19	256.54
	2	1	99	-9	560	1944	38	111.56	30.68	98.02	246.42	9.87	256.29
	3	1	100	-10	352	702	66	146.08	22.09	158.79	202.82	6.93	209.75
	5	1	0	Unrestricted	491	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	654	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	870	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	56	61	530	1895	66	25.65	13.90	99.89	53.63	4.61	58.24

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M q (P
1	1			1	C		574 <	1580	48	0.00	99	-9	120.81	108.81	141.63	31
2	1			1	A		560	1944	38	0.00	99	-9	133.16	111.56	140.54	3
3	1			1	A	B	352 <	702	66	0.00	100	-10	155.68	146.08	157.44	22
5	1						491	Unrestricted	134	56.00	0	Unrestricted	10.80	0.00	0.00	0
6	1						654	Unrestricted	134	10.00	0	Unrestricted	7.80	0.00	0.00	0
7	1						870	Unrestricted	134	32.00	0	Unrestricted	7.20	0.00	0.00	0
8	1			1	A	B	530	1895	66	0.00	56	61	35.25	25.65	69.35	1

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	367.67	65.02	5.65	52.76	749.23	31.60	0.00	780.83
Bus	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
Pedestrians								
TOTAL	367.67	65.02	5.65	52.76	749.23	31.60	0.00	780.83

- *< = 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 1 2038 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:35:59

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

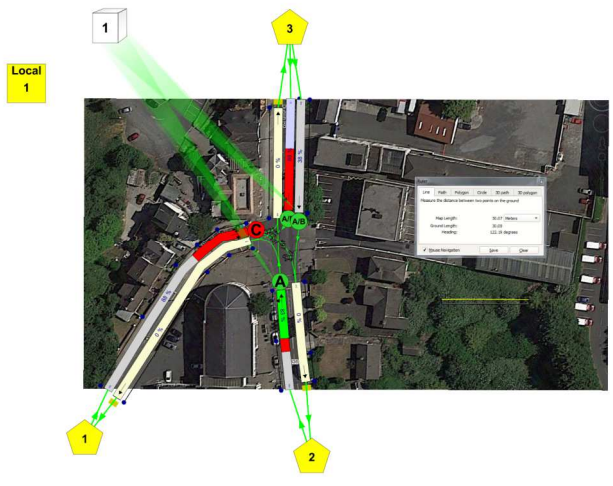
Units

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	PCU	PCU	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)
Cyclotime 0s / 134s , Timesteps 133 / 134
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - Junction 1 2039 DN
D2 - PM PEAK*

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 (PCU-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	24/05/2021 14:35:52	24/05/2021 14:35:52	17:00	134	388.93	25.92	89.03	3/1	0	0	3/1	5/1	3/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2039 DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1580	✓		Normal	
2	1				180.00	✓	Sum of lanes	1957	✓		Normal	
3	1				80.00	✓	Sum of lanes	1673	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	100	6.00	✓	1580
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	22	6.00	✓	1957
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	11.29	✓	1673
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	11.29	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	104	21	51	1	7
	2	✓	2	B	21	45	24	1	7
	3	✓	3	C	50	87	37	1	7
	4	✓	4	D	87	104	17	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	88	2	395	1580	37	72.05	16.81	96.66	112.26	5.56	117.83
	2	1	83	8	634	1957	51	48.57	23.33	74.52	121.47	7.72	129.19
	3	1	89	1	321	636	75	84.15	14.61	105.01	106.55	4.80	111.35
	5	1	0	Unrestricted	458	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	476	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	828	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	38	135	412	1895	75	17.08	8.59	61.73	27.76	2.81	30.57

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M m qu (P
1	1			1	C		395	1580	37	0.00	88	2	84.05	72.05	112.35	16
2	1			1	A		634	1957	51	0.00	83	8	70.17	48.57	97.05	23
3	1			1	A	B	321 <	636	75	0.00	89	1	93.75	84.15	119.18	14.
5	1						458	Unrestricted	134	50.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						476	Unrestricted	134	16.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						828	Unrestricted	134	35.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	412	1895	75	0.00	38	135	26.68	17.08	54.44	8.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	334.10	37.06	9.02	25.92	368.05	20.89	0.00	388.93
Bus	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
Pedestrians								
TOTAL	334.10	37.06	9.02	25.92	368.05	20.89	0.00	388.93

- *< = 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

Filename: Junction 1 2038 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:30:45

File summary

File description

File title	Junction 1 2039 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

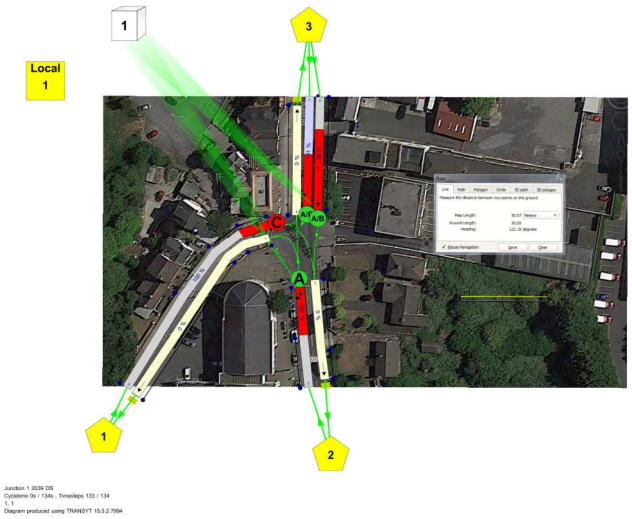
Units

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	PCU	PCU	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



Junction 1 2039 DS
Cyclatime 0s / 134s , Timesteps 133 / 134
1: 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - Junction 1 2039 DS
D1 - AM PEAK*

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 (PCU-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	24/05/2021 14:29:00	24/05/2021 14:29:01	07:45	134	867.16	58.71	101.45	2/1	3	43	2/1	5/1	2/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2039 DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				07:45	

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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1580	✓		Normal	
2	1				180.00	✓	Sum of lanes	1944	✓		Normal	
3	1				80.00	✓	Sum of lanes	1682	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	100	6.00	✓	1580
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	25	6.00	✓	1944
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	11.87	✓	1682
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	11.87	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	132	36	38	1	7
	2	✓	2	B	36	64	28	1	7
	3	✓	3	C	69	117	48	1	7
	4	✓	4	D	117	132	15	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
07:45-08:45	1	1	100	-10	580	1580	48	117.65	33.48	192.50	269.15	10.69	279.84
	2	1	101	-11	574	1944	38	132.89	34.63	110.61	300.87	11.00	311.87
	3	1	101	-11	354	703	66	150.11	22.57	162.23	209.61	7.07	216.68
	5	1	0	Unrestricted	491	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	657	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	880	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	56	60	533	1895	66	25.74	14.13	101.55	54.11	4.65	58.77

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M q (P
1	1			1	C		580 <	1580	48	0.00	100	-10	129.65	117.65	147.60	33
2	1			1	A		574 <	1944	38	0.00	101	-11	154.49	132.89	155.05	34
3	1			1	A	B	354 <	703	66	0.00	101	-11	159.71	150.11	160.45	22
5	1						491	Unrestricted	134	56.00	0	Unrestricted	10.80	0.00	0.00	0
6	1						657	Unrestricted	134	10.00	0	Unrestricted	7.80	0.00	0.00	0
7	1						880	Unrestricted	134	32.00	0	Unrestricted	7.20	0.00	0.00	0
8	1			1	A	B	533 <	1895	66	0.00	56	60	35.34	25.74	69.64	14

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	371.99	71.11	5.23	58.71	833.74	33.42	0.00	867.16
Bus	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
Pedestrians								
TOTAL	371.99	71.11	5.23	58.71	833.74	33.42	0.00	867.16

- *< = 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***

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 1 2038 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:29:58

File summary

File description

File title	Junction 1 2039 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

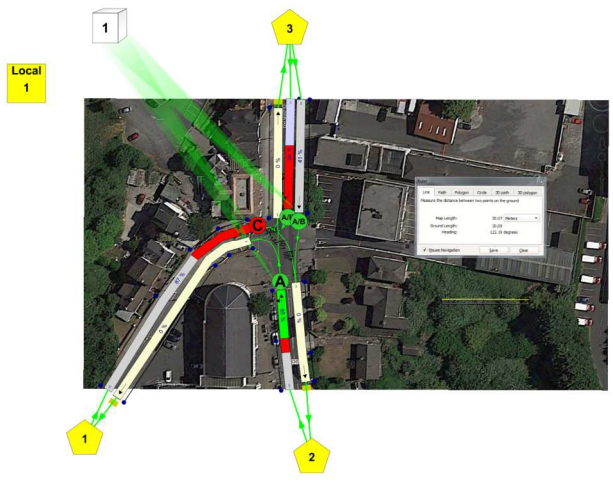
Units

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	PCU	PCU	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



Junction 1 2039 DS
Cyclotime 0s / 134s , Timesteps 133 / 134
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - Junction 1 2039 DS
D2 - PM PEAK*

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 (PCU-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	24/05/2021 14:29:53	24/05/2021 14:29:53	17:00	134	459.61	30.77	98.32	3/1	1	14	3/1	5/1	3/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2039 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1580	✓		Normal	
2	1				180.00	✓	Sum of lanes	1957	✓		Normal	
3	1				80.00	✓	Sum of lanes	1682	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	100	6.00	✓	1580
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	22	6.00	✓	1957
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	11.87	✓	1682
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	11.87	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	104	21	51	1	7
	2	✓	2	B	21	43	22	1	7
	3	✓	3	C	48	86	38	1	7
	4	✓	4	D	86	104	18	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:00-18:00	1	1	87	3	400	1580	38	68.54	16.72	96.12	108.13	5.52	113.65
	2	1	85	6	643	1957	51	49.80	24.01	76.70	126.31	7.92	134.24
	3	1	98	-8	327	602	73	133.07	19.36	139.17	171.64	6.14	177.79
	5	1	0	Unrestricted	469	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	490	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	835	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	41	122	424	1895	73	18.48	9.21	66.17	30.90	3.03	33.93

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M q (P
1	1			1	C		400	1580	38	0.00	87	3	80.54	68.54	110.01	1
2	1			1	A		643	1957	51	0.00	85	6	71.40	49.80	98.29	2
3	1			1	A	B	327 <	602	73	0.00	98	-8	142.67	133.07	149.81	19
5	1						469	Unrestricted	134	49.00	0	Unrestricted	10.80	0.00	0.00	0
6	1						490	Unrestricted	134	17.00	0	Unrestricted	7.80	0.00	0.00	0
7	1						835	Unrestricted	134	34.00	0	Unrestricted	7.20	0.00	0.00	0
8	1			1	A	B	424	1895	73	0.00	41	122	28.08	18.48	57.04	9

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	339.98	42.11	8.07	30.77	436.99	22.62	0.00	459.61
Bus	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
Pedestrians								
TOTAL	339.98	42.11	8.07	30.77	436.99	22.62	0.00	459.61

- *< = 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***

TRANSYT 15

Filename: Junction 1 2038 DM,t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:11:57

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

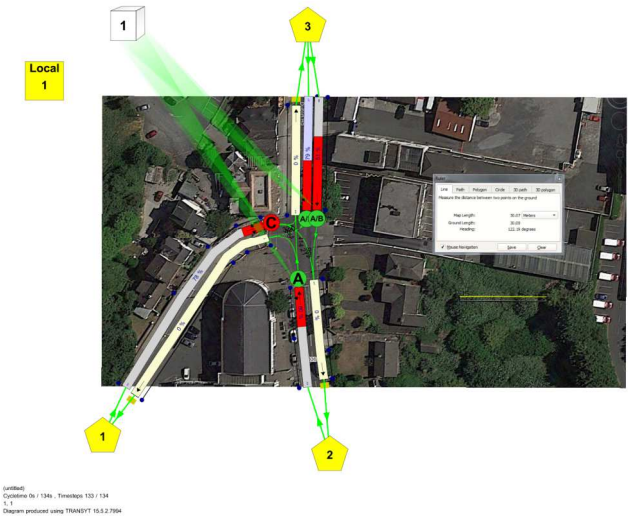
Units

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	PCU	PCU	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)
Cyclelime 0s / 134s , Timesteps 133 / 134
1: 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - Junction 1 2038 DM
D1 - AM PEAK*

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 (PCU-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	24/05/2021 14:11:52	24/05/2021 14:11:52	08:15	134	334.56	22.19	80.20	2/1	0	0	2/1	5/1	2/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2038 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				08:15	

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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1548	✓		Normal	
2	1				180.00	✓	Sum of lanes	2005	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.00	✓	1548
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	12	6.00	✓	2005
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	132	36	38	1	7
	2	✓	2	B	36	64	28	1	7
	3	✓	3	C	69	117	48	1	7
	4	✓	4	D	117	132	15	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
08:15-09:15	1	1	78	16	441	1548	48	48.55	15.78	90.76	84.45	5.24	89.69
	2	1	80	12	468	2005	38	55.93	17.55	56.06	103.25	5.84	109.09
	3	1	79	14	327	825	66	62.36	12.79	91.94	80.44	4.24	84.68
	5	1	0	Unrestricted	381	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	507	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	834	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	51	75	486	1895	66	24.52	12.42	89.26	47.01	4.08	51.09

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE			PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M m qu (P
1	1			1	C		441	1548	48	0.00	78	16	60.55	48.55	94.83	15
2	1			1	A		468	2005	38	0.00	80	12	77.53	55.93	99.51	17
3	1			1	A	B	327	825	66	0.00	79	14	71.96	62.36	103.53	12
5	1						381	Unrestricted	134	62.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						507	Unrestricted	134	29.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						834	Unrestricted	134	38.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	486	1895	66	0.00	51	75	34.12	24.52	66.99	12

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	310.67	32.55	9.54	22.19	315.15	19.41	0.00	334.56
Bus	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
Pedestrians								
TOTAL	310.67	32.55	9.54	22.19	315.15	19.41	0.00	334.56

- *< = 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 1 2038 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 1
Report generation date: 24/05/2021 14:11:20

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	18/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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

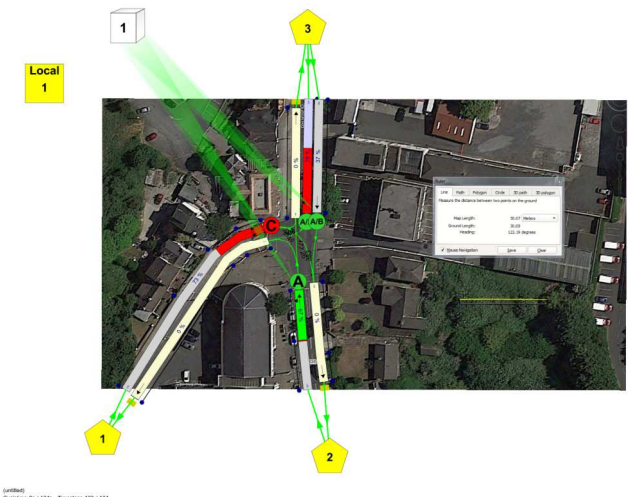
Units

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	PCU	PCU	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)
Cyclotime 0s / 134s , Timesteps 133 / 134
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - Junction 1 2038 DM
D2 - PM PEAK*

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 (PCU-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	24/05/2021 14:11:14	24/05/2021 14:11:14	17:30	134	268.99	17.79	78.50	3/1	0	0	3/1	5/1	3/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Junction 1 2038 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				17:30	

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)
134		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				100.00	✓	Sum of lanes	1548	✓		Normal	
2	1				180.00	✓	Sum of lanes	2020	✓		Normal	
3	1				80.00	✓	Sum of lanes	1651	✓	✓	Normal	
5	1				90.00						Normal	
6	1				65.00						Normal	
7	1				60.00						Normal	
8	1				80.00	✓	Sum of lanes	1895	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.20	✓	100	6.00	✓	1548
2	1	1	(untitled)		✓	N/A	N/A	0	4.50	✓	9	6.00	✓	2020
3	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	100	10.15	✓	1651
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	2.80	✓	0	99999.00	✓	1895

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A		
3	1	1	A	✓	B
8	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
3	1	AllTraffic	✓	0	✓	10.15	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0

Signal Timings

Network Default: 134s cycle time; 134 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	6	0
	2	0	0	5	0
	3	5	5	0	0
	4	0	0	0	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	104	21	51	1	7
	2	✓	2	B	21	43	22	1	7
	3	✓	3	C	48	86	38	1	7
	4	✓	4	D	86	104	18	1	7

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (€ per hr)	Weighted cost of stops (€ per hr)	Performance Index (€ per hr)
17:30-18:30	1	1	73	23	330	1548	38	53.44	11.98	68.86	69.56	3.98	73.54
	2	1	67	34	526	2020	51	38.56	16.75	53.51	80.00	5.57	85.57
	3	1	79	15	324	747	73	59.56	12.62	90.69	76.12	4.17	80.29
	5	1	0	Unrestricted	373	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	6	1	0	Unrestricted	409	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	7	1	0	Unrestricted	781	Unrestricted	134	0.00	0.00	0.00	0.00	0.00	0.00
	8	1	37	146	383	1895	73	17.83	8.08	58.11	26.94	2.66	29.59

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			QU
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (%)	M m qu (P
1	1			1	C		330	1548	38	0.00	73	23	65.44	53.44	96.27	11
2	1			1	A		526	2020	51	0.00	67	34	60.16	38.56	84.41	16
3	1			1	A	B	324	747	73	0.00	79	15	69.16	59.56	102.66	12
5	1						373	Unrestricted	134	55.00	0	Unrestricted	10.80	0.00	0.00	0.
6	1						409	Unrestricted	134	28.00	0	Unrestricted	7.80	0.00	0.00	0.
7	1						781	Unrestricted	134	34.00	0	Unrestricted	7.20	0.00	0.00	0.
8	1			1	A	B	383	1895	73	0.00	37	146	27.43	17.83	55.34	8.

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	291.26	27.50	10.59	17.79	252.61	16.38	0.00	268.99
Bus	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
Pedestrians								
TOTAL	291.26	27.50	10.59	17.79	252.61	16.38	0.00	268.99

- *< = 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 2 2023 DN.j9
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 2
Report generation date: 24/05/2021 16:11:54

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 2 DN - 2024									
1 - R125	D1	2.3	11.87	0.68	B	D2	4.2	18.08	0.79	C
2 - R132 - (S)		0.9	3.04	0.45	A		0.9	3.02	0.44	A
3 - R836		1.2	7.82	0.53	A		0.9	6.34	0.44	A
4 - R132 - (N)		1.3	3.35	0.55	A		1.2	3.03	0.52	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	
Location	
Site number	
Date	31/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 2 DN	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2024	PM	DIRECT	17:30	18:30	60	60

Junction 2 DN - 2024, 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	6.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	R125	
2	R132 - (S)	
3	R836	
4	R132 - (N)	

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 - R125	3.50	7.00	12.0	43.1	64.0	44.0	
2 - R132 - (S)	8.66	10.20	16.2	59.0	64.0	41.0	
3 - R836	3.50	7.00	16.0	45.0	64.0	13.0	
4 - R132 - (N)	9.60	10.60	10.0	26.0	64.0	41.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - R125	0.508	1572
2 - R132 - (S)	0.744	2964
3 - R836	0.578	1829
4 - R132 - (N)	0.756	3062

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R125		✓	100.000
2 - R132 - (S)		✓	100.000
3 - R836		✓	100.000
4 - R132 - (N)		✓	100.000

Origin-Destination Data

Demand (PCU/hr)

17:30 - 18:30

		To			
		1 - R125	2 - R132 - (S)	3 - R836	4 - R132 - (N)
From	1 - R125	0	110	303	403
	2 - R132 - (S)	78	17	210	737
	3 - R836	185	181	3	119
	4 - R132 - (N)	533	754	108	11

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - R125	2 - R132 - (S)	3 - R836	4 - R132 - (N)
From	1 - R125	10	10	10	10
	2 - R132 - (S)	10	10	10	10
	3 - R836	10	10	10	10
	4 - R132 - (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R125	0.79	18.08	4.2	C
2 - R132 - (S)	0.44	3.02	0.9	A
3 - R836	0.44	6.34	0.9	A
4 - R132 - (N)	0.52	3.03	1.2	A

Main Results for each time segment

17:30 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R125	816	1073	1027	0.795	812	4.2	18.075	C
2 - R132 - (S)	1042	824	2351	0.443	1041	0.9	3.022	A
3 - R836	488	1243	1110	0.439	487	0.9	6.343	A
4 - R132 - (N)	1406	463	2712	0.518	1405	1.2	3.026	A

TRANSYT 15

Filename: J2 2024 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 2 20220209
Report generation date: 09/02/2022 13:19:56

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	OCSC\joshua.tai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

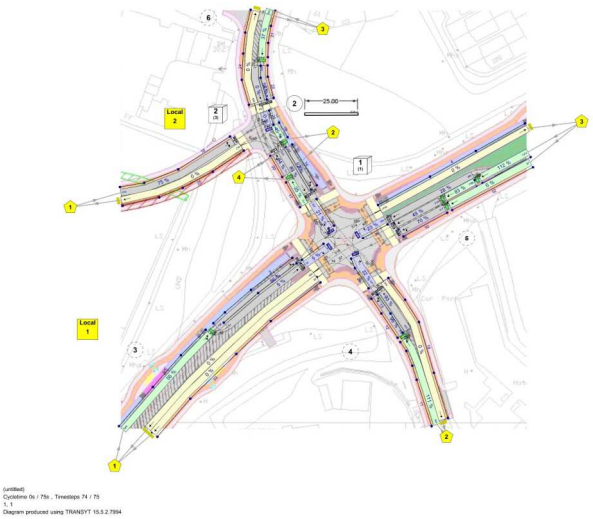
Units

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	PCU	PCU	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



A1 - 2024 DM
D1 - AM*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 14/1)
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 30/1)

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 (PCU-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	09/02/2022 12:21:21	09/02/2022 12:21:22	08:00	75	2595.49	174.16	111.88	5/1	5	16	12/1	5/1	5/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2024 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
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)
75		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	90	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, 0.05		✓	1, 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	2.80	14.20

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Junction 2 2023 DS.j9
Path: C:\Users\joshua.tai\OneDrive - O'Connor Sutton Cronin & Associates Ltd\Desktop\M1297\Junction 2 20220315
Report generation date: 11/04/2022 13:26:14

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 2 DS - 2024									
1 - R125	D1	2.1	11.09	0.66	B	D2	3.5	15.48	0.76	C
2 - R132 - (S)		0.9	3.00	0.44	A		0.8	2.90	0.42	A
3 - R836		1.2	7.64	0.53	A		0.8	6.06	0.43	A
4 - R132 - (N)		4.1	10.86	0.79	B		3.3	8.79	0.75	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

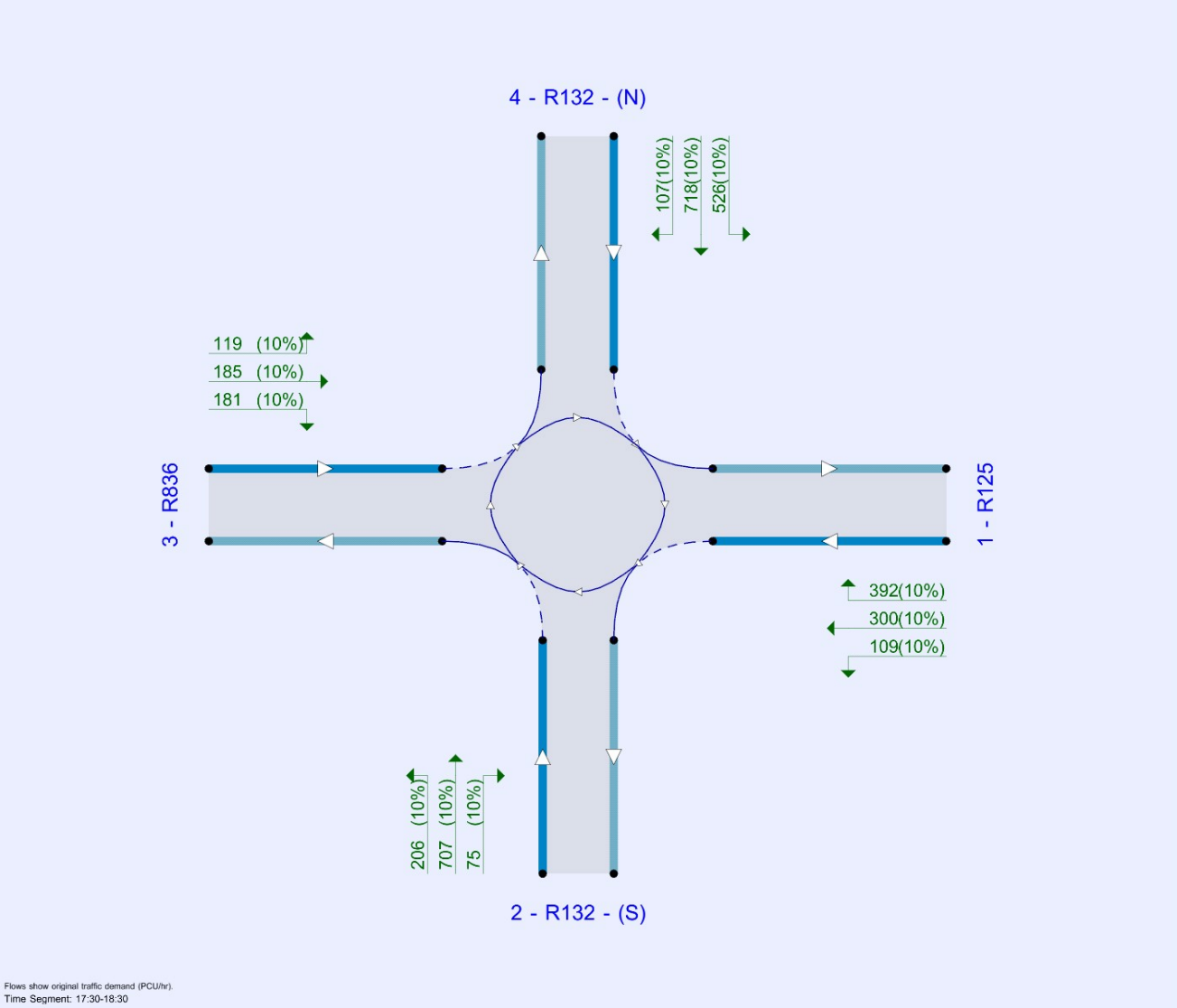
File summary

File Description

Title	
Location	
Site number	
Date	31/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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	PCU	PCU	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

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 2 DS	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2024	PM	DIRECT	17:30	18:30	60	60

Junction 2 DS - 2024, 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	8.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	R125	
2	R132 - (S)	
3	R836	
4	R132 - (N)	

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 - R125	3.50	7.00	12.0	43.1	64.0	44.0	
2 - R132 - (S)	8.66	10.20	16.2	59.0	64.0	41.0	
3 - R836	3.50	7.00	16.0	45.0	64.0	13.0	
4 - R132 - (N)	6.00	7.50	10.0	28.0	64.0	41.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - R125	0.508	1572
2 - R132 - (S)	0.744	2964
3 - R836	0.578	1829
4 - R132 - (N)	0.591	2074

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R125		✓	100.000
2 - R132 - (S)		✓	100.000
3 - R836		✓	100.000
4 - R132 - (N)		✓	100.000

Origin-Destination Data

Demand (PCU/hr)

17:30 - 18:30

		To			
		1 - R125	2 - R132 - (S)	3 - R836	4 - R132 - (N)
From	1 - R125	0	109	300	392
	2 - R132 - (S)	75	10	206	707
	3 - R836	185	181	3	119
	4 - R132 - (N)	526	718	107	11

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - R125	2 - R132 - (S)	3 - R836	4 - R132 - (N)
From	1 - R125	10	10	10	10
	2 - R132 - (S)	10	10	10	10
	3 - R836	10	10	10	10
	4 - R132 - (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R125	0.76	15.48	3.5	C
2 - R132 - (S)	0.42	2.90	0.8	A
3 - R836	0.43	6.06	0.8	A
4 - R132 - (N)	0.75	8.79	3.3	A

Main Results for each time segment

17:30 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R125	801	1028	1050	0.763	798	3.5	15.480	C
2 - R132 - (S)	998	810	2362	0.423	997	0.8	2.900	A
3 - R836	488	1193	1140	0.428	487	0.8	6.061	A
4 - R132 - (N)	1362	453	1806	0.754	1359	3.3	8.793	A

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			3
2			1
3			1
4			
5			5
6			1
8			5
9			1
10			1
11			4
12			1
13			1
14			1
16			
17			
18			2
19			
20			2
21			6
22			2
23			2
24			
25			
26			
27			1
28			1
29			2
30			1
32			5
33			
36			1
37			1

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
1	1	R132 (S) initial app	R132 (S) initial app		100.00	✓	Sum of lanes	2078					Normal	
2	1	R132 (S) left/straight	R132 (S) left/straight		55.00	✓	Sum of lanes	2038	✓	1800	✓		Normal	
3	1				55.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				150.00								Normal	
5	1				50.00	✓	Sum of lanes	2080					Normal	
6	1			✓	47.20	✓	Sum of lanes	2080	✓	1800	✓		Normal	
8	1				20.00	✓	Sum of lanes	2080	✓	1800			Normal	
9	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
10	1				30.00	✓	Sum of lanes	1771	✓	1800	✓		Normal, Bus	
11	1				100.00	✓	Sum of lanes	1940					Normal	
12	1				30.00	✓	Sum of lanes	1931	✓	1800	✓		Normal	
13	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
14	1				30.00	✓	Sum of lanes	2018	✓	1800	✓		Normal	
16	1				30.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
17	1				55.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
18	1				100.00	✓	Sum of lanes	1552			✓		Normal	
19	1			✓	111.42								Normal, Bus	
20	1				10.00	✓	Sum of lanes	1849	✓	1800	✓		Normal	
21	1				50.00	✓	Sum of lanes	2080					Normal	
22	1				20.00	✓	Sum of lanes	1881	✓	1800	✓		Normal	
23	1				25.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
24	1			✓	68.27								Normal	
25	1			✓	79.89								Normal	
26	1			✓	142.46								Normal	
27	1				20.00	✓	Sum of lanes	1872				✓	Normal	
28	1				20.00	✓	Sum of lanes	1909				✓	Normal	
29	1				10.00	✓	Sum of lanes	2080				✓	Normal	
30	1			✓	28.53	✓	Sum of lanes	1800			✓		Normal	
32	1				100.00	✓	Sum of lanes	1940					Bus	
33	1				150.00								Bus	
36	1				20.00	✓	Sum of lanes	1900				✓	Normal	
37	1				15.00	✓	Sum of lanes	1855				✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	6	92.87		2078
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	28	20.51		2038
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)											
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
6	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
8	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
9	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
10	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	91	14.28	✓	1771
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	5	16.57	✓	1931
13	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
14	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	48	23.54		2018
16	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
17	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
18	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	6.00	✓	1552
19	1	1	(untitled)											
20	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	36	10.99	✓	1849
21	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
22	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	47.52	✓	1881
23	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	13.52		1872
28	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	16.79		1909
29	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	6.00		2080
30	1	1	(untitled)											1800
32	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
33	1	1	(untitled)											
36	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.82		1900
37	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	12.36		1855

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
2	1	1	A	
3	1	1	B	
6	1	1	B	
9	1	1	A	
10	1	1	A	
12	1	1	C	
13	1	1	D	
14	1	1	C	
18	1	2	C	
20	1	2	B	
22	1	2	A	
23	1	2	A	
30	1	1	D	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
27	1	AllTraffic	✓	0	✓	13.52	
28	1	AllTraffic	✓	0	✓	16.79	
29	1	AllTraffic	✓	0	✓	6.00	
36	1	AllTraffic	✓	0	✓	15.82	
37	1	AllTraffic	✓	0	✓	12.36	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	12/1	100		0	0
		TrafficStream	14/1	100		0	0
		TrafficStream	20/1	100		0	0
		TrafficStream	2/1	100		0	0
		TrafficStream	9/1	100		0	0
		TrafficStream	10/1	100		0	0

Signal Timings

Network Default: 75s cycle time; 75 steps

Interstage Matrix for Controller Stream 1

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

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	0	5
	2	0	0	5
	3	6	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,B	49	7	33	1	7
	2	✓	2	B	7	13	6	1	1
	3	✓	3	C,D	15	25	10	1	7
	4	✓	4	D	25	35	10	1	1
	5	✓	5	E	35	49	14	1	14
2	1	✓	1	A,B	21	54	33	1	7
	2	✓	2	B	54	55	1	1	1
	3	✓	3	C	60	15	20	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE					PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1	R132 (S) initial app	3			844	2078	75	20.55	56	61	17.51	5.51	42.87	8.33
2	1	R132 (S) left/straight	1	1	A	794 <	2038	33	0.00	86	5	33.63	27.03	67.11	11.19 +
3	1		1	1	B	50	2080	39	24.00	5	1897	15.04	8.44	44.46	0.46
4	1					1069	Unrestricted	75	0.00	0	Unrestricted	18.00	0.00	0.00	0.00
5	1		5			1334 <	2080	75	32.01	112	-20	221.23	215.23	263.40	99.29 +
6	1		1	1	B	238	2080	39	16.60	28	219	18.29	12.62	55.40	1.91
8	1		5			955 <	2080	75	33.65	83	8	14.78	12.38	24.42	4.91 +
9	1		1	1	A	463	2080	33	0.00	49	83	18.80	15.20	39.25	3.79
10	1 NB		1	1	A	559	1771	33	0.00	70	29	22.31	18.28	41.97	4.90
11	1		4			664 <	1940	75	51.86	111	-19	233.07	221.07	261.91	48.98 +
12	1		1	1	C	233 <	1931	10	1.60	96	-7	140.01	136.41	173.96	9.70 +
13	1		1	1	D	365 <	2080	22	6.84	93	-3	69.81	66.21	124.18	7.63 +
14	1		1	1	C	273 <	2018	10	0.00	92	-2	102.83	99.23	133.62	8.17 +
16	1 NB					875	1940	65	10.00	45	100	4.36	0.76	0.00	0.19
17	1 NB					679	1940	75	23.00	35	157	7.10	0.50	0.00	0.09
18	1		2	2	C	376	1552	20	0.00	75	20	42.11	30.11	101.21	7.15
19	1 NB					694	Unrestricted	75	12.00	0	Unrestricted	13.56	0.00	0.00	0.00
20	1		2	2	B	660 <	1849	35	0.00	64	40	7.59	6.39	16.97	2.03 +
21	1		6			543	2080	65	19.44	37	142	10.07	4.07	36.81	4.03
22	1		2	2	A	543	1881	33	0.56	56	60	12.02	9.62	33.17	3.26
23	1		2	2	A	0	2080	33	34.00	0	Unrestricted	0.00	0.00	0.00	0.00
24	1					464	Unrestricted	65	5.00	0	Unrestricted	8.19	0.00	0.00	0.00
25	1					240	Unrestricted	65	25.00	0	Unrestricted	9.59	0.00	0.00	0.00
26	1					809	Unrestricted	75	0.00	0	Unrestricted	17.09	0.00	0.00	0.00
27	1		1			333	1614	75	50.00	21	336	7.83	5.43	81.20	3.00
28	1		1			365	1633	75	49.00	22	303	7.87	5.47	81.57	2.99
29	1		2			0	1163	65	65.00	0	Unrestricted	0.00	0.00	0.00	0.00
30	1		1	1	D	333 <	1800	22	7.30	88	2	59.75	56.32	131.59	9.53 +
32	1 B		5			67	1940	75	33.02	6	1359	30.72	6.72	43.46	0.63
33	1 B					57	Unrestricted	75	45.00	0	Unrestricted	36.00	0.00	0.00	0.00
36	1		1			238	1071	75	34.95	23	287	18.52	16.12	92.24	2.99
37	1		1			50	1045	75	41.00	5	1781	13.61	11.81	86.98	0.47

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	926.39	204.65	4.53	37.48	136.29	2467.57	122.17	0.00	2589.75
Bus	18.37	1.62	11.36	0.30	0.10	5.57	0.18	0.00	5.75
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	944.77	206.27	4.58	37.78	136.39	2473.14	122.35	0.00	2595.49

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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: J2 2024 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 2 20220209
Report generation date: 09/02/2022 12:28:36

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	OCSC\joshua.tai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

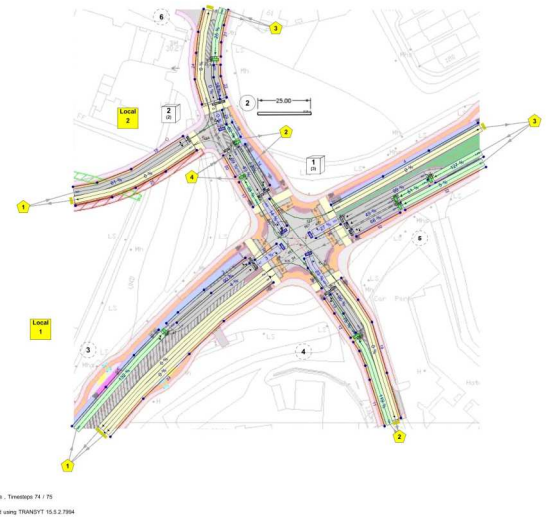
Units

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	PCU	PCU	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)
Cyclotime 0s / 75s , Timesteps 74 / 75
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - 2024 DM
D2 - PM*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 14/1)
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 30/1)

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 (PCU-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	09/02/2022 12:28:23	09/02/2022 12:28:24	08:00	75	5667.26	387.98	131.89	1/1	5	16	6/1	1/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2024 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				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)
75		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	90	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, 0.05		✓	1, 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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			3
2			1
3			1
4			
5			5
6			1
8			5
9			1
10			1
11			4
12			1
13			1
14			1
16			
17			
18			2
19			
20			2
21			6
22			2
23			2
24			
25			
26			
27			1
28			1
29			2
30			1
32			5
33			
36			1
37			1

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
1	1	R132 (S) initial app	R132 (S) initial app		100.00	✓	Sum of lanes	2078					Normal	
2	1	R132 (S) left/straight	R132 (S) left/straight		55.00	✓	Sum of lanes	2032	✓	1800	✓		Normal	
3	1				55.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				150.00								Normal	
5	1				50.00	✓	Sum of lanes	2080					Normal	
6	1			✓	47.20	✓	Sum of lanes	2080	✓	1800	✓		Normal	
8	1				20.00	✓	Sum of lanes	2080	✓	1800			Normal	
9	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
10	1				30.00	✓	Sum of lanes	1772	✓	1800	✓		Normal, Bus	
11	1				100.00	✓	Sum of lanes	1940					Normal	
12	1				30.00	✓	Sum of lanes	1889	✓	1800	✓		Normal	
13	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
14	1				30.00	✓	Sum of lanes	2011	✓	1800	✓		Normal	
16	1				30.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
17	1				55.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
18	1				100.00	✓	Sum of lanes	1552			✓		Normal	
19	1			✓	111.42								Normal, Bus	
20	1				10.00	✓	Sum of lanes	1821	✓	1800	✓		Normal	
21	1				50.00	✓	Sum of lanes	2080					Normal	
22	1				20.00	✓	Sum of lanes	1881	✓	1800	✓		Normal	
23	1				25.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
24	1			✓	68.27								Normal	
25	1			✓	79.89								Normal	
26	1			✓	142.46								Normal	
27	1				20.00	✓	Sum of lanes	1872				✓	Normal	
28	1				20.00	✓	Sum of lanes	1909				✓	Normal	
29	1				10.00	✓	Sum of lanes	2080				✓	Normal	
30	1			✓	28.53	✓	Sum of lanes	1800			✓		Normal	
32	1				100.00	✓	Sum of lanes	1940					Bus	
33	1				150.00								Bus	
36	1				20.00	✓	Sum of lanes	1900				✓	Normal	
37	1				15.00	✓	Sum of lanes	1855				✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	5	92.87		2078
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	32	20.51		2032
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)											
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
6	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
8	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
9	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
10	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	90	14.28	✓	1772
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	30	16.57	✓	1889
13	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
14	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	54	23.54		2011
16	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
17	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
18	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	6.00	✓	1552
19	1	1	(untitled)											
20	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	48	10.99	✓	1821
21	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
22	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	47.52	✓	1881
23	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	13.52		1872
28	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	16.79		1909
29	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	6.00		2080
30	1	1	(untitled)											1800
32	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
33	1	1	(untitled)											
36	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.82		1900
37	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	12.36		1855

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
2	1	1	A	
3	1	1	B	
6	1	1	B	
9	1	1	A	
10	1	1	A	
12	1	1	C	
13	1	1	D	
14	1	1	C	
18	1	2	C	
20	1	2	B	
22	1	2	A	
23	1	2	A	
30	1	1	D	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
27	1	AllTraffic	✓	0	✓	13.52	
28	1	AllTraffic	✓	0	✓	16.79	
29	1	AllTraffic	✓	0	✓	6.00	
36	1	AllTraffic	✓	0	✓	15.82	
37	1	AllTraffic	✓	0	✓	12.36	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling traffic	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	12/1	100		0	0
		TrafficStream	14/1	100		0	0
		TrafficStream	20/1	100		0	0
		TrafficStream	2/1	100		0	0
		TrafficStream	9/1	100		0	0
		TrafficStream	10/1	100		0	0

Signal Timings

Network Default: 75s cycle time; 75 steps

Interstage Matrix for Controller Stream 1

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

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	5	0
	2	6	0	0
	3	0	0	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,B	25	52	27	1	7
	2	✓	2	B	52	59	7	1	1
	3	✓	3	C,D	61	3	17	1	7
	4	✓	4	D	3	11	8	1	1
	5	✓	5	E	11	25	14	1	14
2	1	✓	1	A,B	11	51	40	1	7
	2	✓	2	C	56	3	12	1	7
	3	✓	3	D	3	11	8	1	8

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1	R132 (S) initial app	3			945 <	2078	75	49.14	132	-32	468.43	456.43	347.34	130.51 +
2	1	R132 (S) left/straight	1	1	A	681 <	2032	27	0.00	90	0	54.30	47.70	83.08	12.22 +
3	1		1	1	B	36	2080	34	16.00	4	2352	18.95	12.35	35.10	0.26
4	1					1027	Unrestricted	75	0.00	0	Unrestricted	18.00	0.00	0.00	0.00
5	1		5			1358 <	2080	75	36.31	127	-29	396.79	392.79	332.69	166.38 +
6	1		1	1	B	302 <	2080	34	24.31	99	-9	161.58	155.91	297.64	14.55 +
8	1		5			771	2080	75	29.42	61	48	8.14	5.74	15.43	2.48
9	1		1	1	A	382	2080	27	0.00	49	83	21.00	17.40	47.32	3.76
10	1 NB		1	1	A	453	1772	27	0.00	68	32	25.39	21.29	51.11	4.83
11	1		4			755 <	1940	75	50.53	119	-25	331.55	319.55	305.86	76.52 +
12	1		1	1	C	293	1889	17	2.55	75	19	45.37	41.77	74.41	4.60
13	1		1	1	D	339 <	2080	27	15.09	95	-5	95.17	91.57	180.10	9.55 +
14	1		1	1	C	419 <	2011	17	0.00	87	4	46.97	43.37	77.27	6.93 +
16	1 NB					630	1940	65	11.00	32	177	4.05	0.45	0.00	0.08
17	1 NB					728	1940	75	21.00	38	140	7.16	0.56	0.00	0.11
18	1		2	2	C	189	1552	12	0.00	61	48	44.56	32.56	101.57	3.56
19	1 NB					626	Unrestricted	75	11.00	0	Unrestricted	13.56	0.00	0.00	0.00
20	1		2	2	B	797 <	1821	40	0.00	69	30	6.96	5.76	15.42	2.23 +
21	1		6			459	2080	65	8.28	25	256	6.78	0.78	11.27	1.32
22	1		2	2	A	459	1881	40	0.34	39	131	8.88	6.48	36.41	3.02
23	1		2	2	A	0	2080	40	41.00	0	Unrestricted	0.00	0.00	0.00	0.00
24	1					431	Unrestricted	65	10.00	0	Unrestricted	8.19	0.00	0.00	0.00
25	1					384	Unrestricted	65	19.00	0	Unrestricted	9.59	0.00	0.00	0.00
26	1					678	Unrestricted	75	0.00	0	Unrestricted	17.09	0.00	0.00	0.00
27	1		1			208	1510	75	46.00	14	553	12.39	9.99	85.39	2.99
28	1		1			339	1474	75	44.00	23	291	10.85	8.45	83.53	3.00
29	1		2			0	965	65	65.00	0	Unrestricted	0.00	0.00	0.00	0.00
30	1		1	1	D	208	1800	27	6.53	40	123	22.72	19.30	81.97	3.20
32	1 B		5			63	1940	75	28.37	5	1623	28.89	4.89	36.33	0.51
33	1 B					54	Unrestricted	75	48.00	0	Unrestricted	36.00	0.00	0.00	0.00
36	1		1			302 <	1205	75	37.11	27	228	16.74	14.34	92.93	3.01 +
37	1		1			36	1197	75	40.00	3	2923	6.53	4.73	38.02	0.26

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	882.47	416.96	2.12	41.02	346.52	5503.13	157.77	0.00	5660.89
Bus	17.29	1.59	10.88	0.33	0.10	6.19	0.17	0.00	6.37
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	899.76	418.55	2.15	41.36	346.62	5509.32	157.94	0.00	5667.26

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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 2 2038 DN.j9
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 2
Report generation date: 24/05/2021 15:40:47

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 2 DN - 2039									
1 - R125	D1	8.0	33.33	0.89	D	D2	32.5	90.93	1.00	F
2 - R132 - (S)		1.1	3.42	0.49	A		1.2	3.59	0.52	A
3 - R836		2.1	11.08	0.65	B		1.3	8.37	0.54	A
4 - R132 - (N)		2.0	4.26	0.64	A		1.6	3.65	0.60	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	
Location	
Site number	
Date	31/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 2 DN	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2039	PM	DIRECT	17:30	18:30	60	60

Junction 2 DN - 2039, 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	23.49	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	R125	
2	R132 - (S)	
3	R836	
4	R132 - (N)	

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 - R125	3.50	7.00	12.0	43.1	64.0	44.0	
2 - R132 - (S)	8.66	10.20	16.2	59.0	64.0	41.0	
3 - R836	3.50	7.00	16.0	45.0	64.0	13.0	
4 - R132 - (N)	9.60	10.60	10.0	26.0	64.0	41.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - R125	0.508	1572
2 - R132 - (S)	0.744	2964
3 - R836	0.578	1829
4 - R132 - (N)	0.756	3062

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R125		✓	100.000
2 - R132 - (S)		✓	100.000
3 - R836		✓	100.000
4 - R132 - (N)		✓	100.000

Origin-Destination Data

Demand (PCU/hr)

17:30 - 18:30

		To			
		1 - R125	2 - R132 - (S)	3 - R836	4 - R132 - (N)
From	1 - R125	0	122	350	469
	2 - R132 - (S)	66	22	239	848
	3 - R836	197	211	4	137
	4 - R132 - (N)	592	879	119	12

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - R125	2 - R132 - (S)	3 - R836	4 - R132 - (N)
From	1 - R125	10	10	10	10
	2 - R132 - (S)	10	10	10	10
	3 - R836	10	10	10	10
	4 - R132 - (N)	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R125	1.00	90.93	32.5	F
2 - R132 - (S)	0.52	3.59	1.2	A
3 - R836	0.54	8.37	1.3	A
4 - R132 - (N)	0.60	3.65	1.6	A

Main Results for each time segment

17:30 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R125	941	1245	939	1.002	909	32.5	90.933	F
2 - R132 - (S)	1175	926	2276	0.516	1174	1.2	3.591	A
3 - R836	549	1400	1020	0.538	548	1.3	8.365	A
4 - R132 - (N)	1602	499	2685	0.597	1600	1.6	3.645	A

TRANSYT 15

Filename: Junction 2 2038 DS AM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 2 20220209
Report generation date: 09/02/2022 12:01:48

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	OCSC\joshua.tai
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	PCU	PCU	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 / 100s , Timesteps 99 / 100
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2039 DS
D1 - AM*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 29	No traffic node specified for arm(s): 29

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 (PCU-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	09/02/2022 12:01:37	09/02/2022 12:01:37	08:00	100	8976.87	620.39	145.10	5/1	4	17	13/1	5/1	5/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2039 DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
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)
100		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(s)-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			3
2			1
3			1
4			
5			5
6			1
9			1
10			1
11			4
12			1
13			1
14			1
15			1
17			
19			
21			6
22			5
23			1
24			
26			
27			1
28			1
29			
30			1

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
1	1	R132 (S) initial app	R132 (S) initial app		100.00	✓	Sum of lanes	2040					Normal	
2	1	R132 (S) left/straight	R132 (S) left/straight		55.00	✓	Sum of lanes	2043	✓	1800	✓		Normal	
3	1				50.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1			✓	113.96								Normal	
5	1				100.00	✓	Sum of lanes	2080					Normal	
6	1				50.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
9	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
10	1				30.00	✓	Sum of lanes	1800	✓	1800	✓		Normal, Bus	
11	1				40.00	✓	Sum of lanes	1940					Normal	
12	1				30.00	✓	Sum of lanes	1930			✓		Normal	
13	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
14	1				30.00	✓	Sum of lanes	2039	✓	1800	✓		Normal	
15	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
17	1				130.00								Normal	
19	1				100.00								Normal, Bus	
21	1			✓	55.72	✓	Sum of lanes	2080					Normal	
22	1			✓	22.30	✓	Sum of lanes	2080	✓	1800			Normal	
23	1			✓	15.50	✓	Sum of lanes	1936				✓	Normal	
24	1				150.00								Bus	
26	1			✓	140.99								Normal	
27	1				20.00	✓	Sum of lanes	1895				✓	Normal	
28	1				20.00	✓	Sum of lanes	1841				✓	Normal	
29	1				100.00	✓	Sum of lanes	1800					Bus	
30	1				15.00	✓	Sum of lanes	1902				✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	88	66.68		2040
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	20	16.38		2043
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)											
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
6	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
9	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
10	1	1	(untitled)											1800
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	6	18.08	✓	1930
13	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
14	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	29	21.62		2039
15	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
17	1	1	(untitled)											
19	1	1	(untitled)											
21	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
22	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
23	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.16		1936
24	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.32		1895
28	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	11.53		1841
29	1	1	(untitled)											1800
30	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.99		1902

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
2	1	1	A	
3	1	1	B	
6	1	1	B	
9	1	1	A	
10	1	1	A	
12	1	1	C	
13	1	1	D	
14	1	1	C	
15	1	1	D	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
23	1	AllTraffic	✓	0	✓	20.16	
27	1	AllTraffic	✓	0	✓	15.32	
28	1	AllTraffic	✓	0	✓	11.53	
30	1	AllTraffic	✓	0	✓	15.99	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0
		TrafficStream	12/1	100		0	0
		TrafficStream	14/1	100		0	0
		TrafficStream	9/1	100		0	0
		TrafficStream	10/1	100		0	0

Signal Timings

Network Default: 100s cycle time; 100 steps

Interstage Matrix for Controller Stream 1

From \ To	1	2	3	4	5
1	0	0	6	0	0
2	0	0	2	0	0
3	7	2	0	0	0
4	0	0	0	0	0
5	0	0	0	0	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,B	84	33	49	1	7
	2	✓	2	B	33	37	4	1	1
	3	✓	3	C,D	39	55	16	1	7
	4	✓	4	D	55	70	15	1	1
	5	✓	5	E	70	84	14	1	14

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1	R132 (S) initial app	3			1239 <	2040	100	49.47	120	-25	340.22	328.22	287.86	134.58 +
2	1	R132 (S) left/straight	1	1	A	907 <	2043	49	0.00	89	1	37.00	30.40	46.65	11.97 +
3	1		1	1	B	124	2080	53	13.09	11	714	16.63	10.63	26.29	1.46
4	1					1168	Unrestricted	100	0.00	0	Unrestricted	13.67	0.00	0.00	0.00
5	1		5			1659 <	2080	100	45.03	145	-38	587.57	575.57	371.42	290.36 +
6	1		1	1	B	98	2080	53	11.07	9	932	17.82	11.82	31.03	1.45
9	1		1	1	A	570	2080	49	0.00	55	64	18.18	14.58	29.16	4.62
10	1 NB		1	1	A	576	1800	49	0.00	64	41	19.53	15.31	28.97	4.64
11	1		4			806 <	1940	100	77.08	134	-33	490.71	485.91	341.12	120.09 +
12	1		1	1	C	240 <	1930	16	0.00	73	23	66.91	63.31	93.02	6.51 +
13	1		1	1	D	362 <	2080	33	14.53	89	1	68.29	64.69	110.55	7.51 +
14	1		1	1	C	278 <	2039	16	0.00	80	12	68.77	65.17	75.07	5.87 +
15	1		1	1	D	203	2080	33	8.00	29	214	4.79	1.19	1.28	0.07
17	1					505	Unrestricted	100	16.00	0	Unrestricted	15.60	0.00	0.00	0.00
19	1 NB					810	Unrestricted	100	18.00	0	Unrestricted	12.21	0.00	0.00	0.00
21	1		6			664 <	2080	100	76.89	138	-35	537.09	530.40	352.79	106.12 +
22	1		5			1045 <	2080	100	42.86	88	2	17.94	15.26	19.19	5.95 +
23	1		1			98	988	100	46.00	10	809	23.53	21.67	93.47	1.90
24	1 B					86	Unrestricted	100	50.00	0	Unrestricted	36.00	0.00	0.00	0.00
26	1					788	Unrestricted	100	0.00	0	Unrestricted	16.92	0.00	0.00	0.00
27	1		1			203	1630	100	65.00	12	624	3.17	0.77	22.08	0.58
28	1		1			362	1546	100	63.00	23	284	8.81	6.41	80.83	2.99
29	1 B					100	1800	100	43.51	10	815	33.17	9.17	44.81	1.28
30	1		1			124	982	100	45.00	13	613	21.59	19.79	94.83	2.22

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	911.17	650.17	1.40	44.86	574.94	8801.19	167.17	0.00	8968.36
Bus	27.30	2.40	11.36	0.48	0.10	8.27	0.23	0.00	8.51
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	938.47	652.58	1.44	45.34	575.04	8809.47	167.40	0.00	8976.87

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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

Filename: Junction 2 2038 DS PM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 2 20220209
Report generation date: 09/02/2022 12:09:02

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	OCSC\joshua.tai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

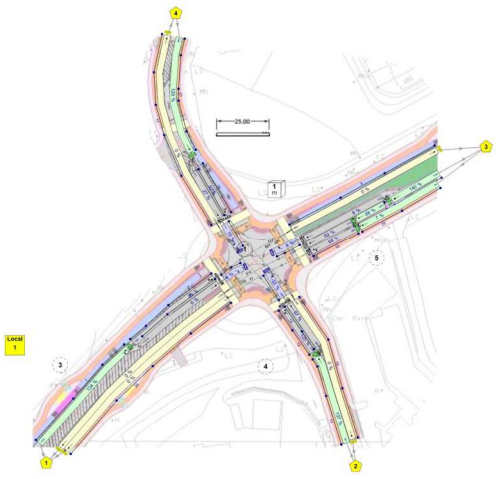
Units

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	PCU	PCU	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 / 75s , Timesteps 74 / 75
Diagram produced using TRANSYT 15.5.2.7994

A2 - 2039 DS
D2 - PM*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Arm Data	Arm 29	No traffic node specified for arm(s): 29

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 (PCU-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	09/02/2022 12:08:53	09/02/2022 12:08:53	16:45	75	9570.12	660.77	139.88	5/1	7	29	12/1	5/1	5/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2039 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				16:45	

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)
75		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	90	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			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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			3
2			1
3			1
4			
5			5
6			1
9			1
10			1
11			4
12			1
13			1
14			1
15			1
17			
19			
21			6
22			5
23			1
24			
26			
27			1
28			1
29			
30			1

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
1	1	R132 (S) initial app	R132 (S) initial app		100.00	✓	Sum of lanes	2038					Normal	
2	1	R132 (S) left/straight	R132 (S) left/straight		55.00	✓	Sum of lanes	2039	✓	1800	✓		Normal	
3	1				50.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1			✓	113.96								Normal	
5	1				50.00	✓	Sum of lanes	2080					Normal	
6	1				50.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
9	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
10	1				30.00	✓	Sum of lanes	1800	✓	1800	✓		Normal, Bus	
11	1				40.00	✓	Sum of lanes	1940					Normal	
12	1				30.00	✓	Sum of lanes	1899			✓		Normal	
13	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
14	1				30.00	✓	Sum of lanes	2025	✓	1800	✓		Normal	
15	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
17	1				130.00								Normal	
19	1				100.00								Normal, Bus	
21	1			✓	55.72	✓	Sum of lanes	2080					Normal	
22	1			✓	19.83	✓	Sum of lanes	2080	✓	1800			Normal	
23	1			✓	15.50	✓	Sum of lanes	1936				✓	Normal	
24	1				150.00								Bus	
26	1			✓	140.99								Normal	
27	1				20.00	✓	Sum of lanes	1895				✓	Normal	
28	1				20.00	✓	Sum of lanes	1841				✓	Normal	
29	1				100.00	✓	Sum of lanes	1800					Bus	
30	1				15.00	✓	Sum of lanes	1902				✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	92	66.68		2038
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	22	16.38		2039
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)											
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
6	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
9	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
10	1	1	(untitled)											1800
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	26	18.08	✓	1899
13	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
14	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	39	21.62		2025
15	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
17	1	1	(untitled)											
19	1	1	(untitled)											
21	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
22	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
23	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.16		1936
24	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.32		1895
28	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	11.53		1841
29	1	1	(untitled)											1800
30	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.99		1902

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
2	1	1	A	
3	1	1	B	
6	1	1	B	
9	1	1	A	
10	1	1	A	
12	1	1	C	
13	1	1	D	
14	1	1	C	
15	1	1	D	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
23	1	AllTraffic	✓	0	✓	20.16	
27	1	AllTraffic	✓	0	✓	15.32	
28	1	AllTraffic	✓	0	✓	11.53	
30	1	AllTraffic	✓	0	✓	15.99	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	2/1	100		0	0
		TrafficStream	12/1	100		0	0
		TrafficStream	14/1	100		0	0
		TrafficStream	9/1	100		0	0
		TrafficStream	10/1	100		0	0

Signal Timings

Network Default: 75s cycle time; 75 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	6	6	0
	2	0	0	2	0	0
	3	7	2	0	0	0
	4	6	0	0	0	0
	5	0	0	0	0	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,B	69	27	33	1	7
	2	✓	2	B	27	34	7	1	1
	3	✓	3	C,D	36	46	10	1	7
	4	✓	4	D	46	55	9	1	1
	5	✓	5	E	55	69	14	1	14

Final Prediction Table

Traffic Stream Results

			SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1	R132 (S) initial app	3			1200 <	2038	75	42.09	134	-33	488.12	476.12	354.27	172.68 +
2	1	R132 (S) left/straight	1	1	A	825 <	2039	33	0.00	89	1	42.52	35.92	68.07	12.11 +
3	1		1	1	B	69	2080	40	14.00	6	1377	14.49	8.49	28.96	0.42
4	1					1092	Unrestricted	75	0.00	0	Unrestricted	13.67	0.00	0.00	0.00
5	1		5			1530 <	2080	75	35.56	140	-36	533.00	527.00	369.48	241.52 +
6	1		1	1	B	89	2080	40	11.07	8	1052	15.48	9.48	34.35	1.45
9	1		1	1	A	580	2080	33	0.00	62	46	20.13	16.53	39.96	4.84
10	1 NB		1	1	A	519	1800	33	0.00	64	42	21.45	17.20	42.51	4.60
11	1		4			945 <	1940	75	75.00	137	-34	509.45	504.65	361.96	142.42 +
12	1		1	1	C	348 <	1899	10	0.00	125	-28	419.04	415.44	330.09	42.27 +
13	1		1	1	D	343 <	2080	21	9.23	97	-7	106.51	102.91	188.14	10.76 +
14	1		1	1	C	273 <	2025	10	0.00	92	-2	100.69	97.09	132.53	8.08 +
15	1		1	1	D	163	2080	21	6.09	27	235	13.91	10.31	19.19	1.50
17	1					475	Unrestricted	75	8.00	0	Unrestricted	15.60	0.00	0.00	0.00
19	1 NB					683	Unrestricted	75	11.00	0	Unrestricted	12.39	0.00	0.00	0.00
21	1		6			563 <	2080	75	59.27	129	-30	444.11	437.43	340.41	74.00 +
22	1		5			1005 <	2080	75	33.73	88	2	18.25	15.88	26.38	5.90 +
23	1		1			89	1076	75	34.00	8	992	14.82	12.96	80.75	1.11
24	1 B					72	Unrestricted	75	42.00	0	Unrestricted	36.00	0.00	0.00	0.00
26	1					818	Unrestricted	75	0.00	0	Unrestricted	16.92	0.00	0.00	0.00
27	1		1			163	1617	75	51.00	10	790	4.73	2.33	31.59	0.92
28	1		1			343	1575	75	50.00	22	313	8.25	5.85	84.51	2.99
29	1 B					94	1800	75	17.27	7	1227	25.79	1.79	22.06	0.47
30	1		1			69	1067	75	34.00	6	1285	10.59	8.79	73.32	0.52

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	783.02	686.38	1.14	39.11	621.16	9375.90	186.93	0.00	9562.83
Bus	25.22	2.18	11.56	0.40	0.10	7.10	0.19	0.00	7.29
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	808.24	688.56	1.17	39.51	621.26	9383.00	187.12	0.00	9570.12

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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: J2 2038 DM.t15
Path: C:\Users\joshua.tail\OneDrive - OCSC\Desktop\M1297\Junction 2 20220209
Report generation date: 09/02/2022 11:55:05

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	OCSC\joshua.tail
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
			✓		✓	✓	✓	✓	✓	✓	✓		

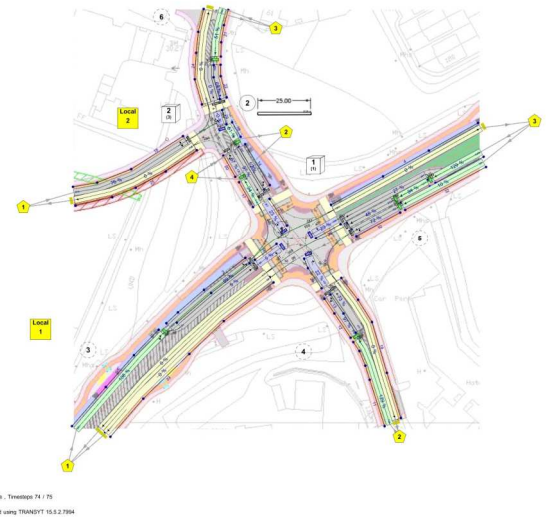
Units

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	PCU	PCU	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 / 75s , Timesteps 74 / 75
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2039 DM
D1 - AM*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 14/1)
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 30/1)

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 (PCU-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	09/02/2022 11:48:39	09/02/2022 11:48:40	08:00	75	5396.57	368.57	129.04	5/1	6	19	30/1	5/1	5/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2039 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
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)
75		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	90	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, 0.05		✓	1, 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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			3
2			1
3			1
4			
5			5
6			1
8			5
9			1
10			1
11			4
12			1
13			1
14			1
16			
17			
18			2
19			
20			2
21			6
22			2
23			2
24			
25			
26			
27			1
28			1
29			2
30			1
32			5
33			
36			1
37			1

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
1	1	R132 (S) initial app	R132 (S) initial app		100.00	✓	Sum of lanes	2078					Normal	
2	1	R132 (S) left/straight	R132 (S) left/straight		55.00	✓	Sum of lanes	2040	✓	1800	✓		Normal	
3	1				55.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				150.00								Normal	
5	1				50.00	✓	Sum of lanes	2080					Normal	
6	1			✓	47.20	✓	Sum of lanes	2080	✓	1800	✓		Normal	
8	1				20.00	✓	Sum of lanes	2080	✓	1800			Normal	
9	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
10	1				30.00	✓	Sum of lanes	1776	✓	1800	✓		Normal, Bus	
11	1				100.00	✓	Sum of lanes	1940					Normal	
12	1				30.00	✓	Sum of lanes	1930	✓	1800	✓		Normal	
13	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
14	1				30.00	✓	Sum of lanes	2020	✓	1800	✓		Normal	
16	1				30.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
17	1				55.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
18	1				100.00	✓	Sum of lanes	1552			✓		Normal	
19	1			✓	111.42								Normal, Bus	
20	1				10.00	✓	Sum of lanes	1852	✓	1800	✓		Normal	
21	1				50.00	✓	Sum of lanes	2080					Normal	
22	1				20.00	✓	Sum of lanes	1881	✓	1800	✓		Normal	
23	1				25.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
24	1			✓	68.27								Normal	
25	1			✓	79.89								Normal	
26	1			✓	142.46								Normal	
27	1				20.00	✓	Sum of lanes	1872				✓	Normal	
28	1				20.00	✓	Sum of lanes	1909				✓	Normal	
29	1				10.00	✓	Sum of lanes	1664				✓	Normal	
30	1			✓	28.53	✓	Sum of lanes	1800			✓		Normal	
32	1				100.00	✓	Sum of lanes	1940					Bus	
33	1				150.00								Bus	
36	1				20.00	✓	Sum of lanes	1900				✓	Normal	
37	1				15.00	✓	Sum of lanes	1855				✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	6	92.87		2078
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	27	20.51		2040
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)											
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
6	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
8	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
9	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
10	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	88	14.28	✓	1776
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	6	16.57	✓	1930
13	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
14	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	47	23.54		2020
16	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
17	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
18	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	6.00	✓	1552
19	1	1	(untitled)											
20	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	35	10.99	✓	1852
21	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
22	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	47.52	✓	1881
23	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	13.52		1872
28	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	16.79		1909
29	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	6.00		1664
30	1	1	(untitled)											1800
32	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
33	1	1	(untitled)											
36	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.82		1900
37	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	12.36		1855

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
2	1	1	A	
3	1	1	B	
6	1	1	B	
9	1	1	A	
10	1	1	A	
12	1	1	C	
13	1	1	D	
14	1	1	C	
18	1	2	C	
20	1	2	B	
22	1	2	A	
23	1	2	A	
30	1	1	D	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
27	1	AllTraffic	✓	0	✓	13.52	
28	1	AllTraffic	✓	0	✓	16.79	
29	1	AllTraffic	✓	0	✓	6.00	
36	1	AllTraffic	✓	0	✓	15.82	
37	1	AllTraffic	✓	0	✓	12.36	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	12/1	100		0	0
		TrafficStream	14/1	100		0	0
		TrafficStream	20/1	100		0	0
		TrafficStream	2/1	100		0	0
		TrafficStream	9/1	100		0	0
		TrafficStream	10/1	100		0	0

Signal Timings

Network Default: 75s cycle time; 75 steps

Interstage Matrix for Controller Stream 1

From \ To	1	2	3	4	5
1	0	0	6	6	0
2	0	0	2	0	0
3	8	2	0	0	0
4	6	0	0	0	0
5	0	0	0	0	0

Interstage Matrix for Controller Stream 2

From \ To	1	2	3
1	0	0	5
2	0	0	5
3	6	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,B	49	7	33	1	7
	2	✓	2	B	7	13	6	1	1
	3	✓	3	C,D	15	25	10	1	7
	4	✓	4	D	25	35	10	1	1
	5	✓	5	E	35	49	14	1	14
2	1	✓	1	A,B	21	54	33	1	7
	2	✓	2	B	54	55	1	1	1
	3	✓	3	C	60	15	20	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1	R132 (S) initial app	3			951 <	2078	75	43.36	108	-17	188.24	176.24	239.53	60.28 +
2	1	R132 (S) left/straight	1	1	A	825 <	2040	33	0.00	89	1	42.12	35.52	68.97	12.09 +
3	1		1	1	B	52	2080	39	16.00	5	1834	16.31	9.71	32.81	0.35
4	1					1083	Unrestricted	75	0.00	0	Unrestricted	18.00	0.00	0.00	0.00
5	1		5			1508 <	2080	75	32.86	129	-30	427.17	421.17	340.23	195.40 +
6	1		1	1	B	230	2080	39	16.24	27	234	17.88	12.22	56.07	1.78
8	1		5			938 <	2080	75	34.91	84	7	15.97	13.57	25.80	5.11 +
9	1		1	1	A	456	2080	33	0.00	48	86	18.39	14.79	37.94	3.61
10	1 NB		1	1	A	582	1776	33	0.00	72	24	22.55	18.33	40.89	4.98
11	1		4			748 <	1940	75	52.50	129	-30	439.48	427.48	339.07	96.72 +
12	1		1	1	C	227 <	1930	10	1.88	97	-7	145.86	142.26	179.05	9.77 +
13	1		1	1	D	355	2080	22	7.52	73	23	34.44	30.84	91.58	3.97
14	1		1	1	C	273 <	2020	10	0.00	92	-2	102.47	98.87	133.27	8.15 +
16	1 NB					991	1940	65	10.00	51	76	4.57	0.97	0.00	0.27
17	1 NB					669	1940	75	23.00	34	161	7.09	0.49	0.00	0.09
18	1		2	2	C	379	1552	20	0.00	76	19	42.49	30.49	102.11	7.24
19	1 NB					691	Unrestricted	75	12.00	0	Unrestricted	13.64	0.00	0.00	0.00
20	1		2	2	B	686 <	1852	35	0.00	67	35	7.84	6.64	17.04	2.12 +
21	1		6			668	2080	65	23.83	51	78	12.76	6.76	49.84	6.75
22	1		2	2	A	664 <	1881	33	0.78	69	30	12.89	10.49	30.44	3.66 +
23	1		2	2	A	4	2080	33	33.00	0	24380	8.94	5.94	25.72	0.02
24	1					497	Unrestricted	65	4.00	0	Unrestricted	8.19	0.00	0.00	0.00
25	1					245	Unrestricted	65	25.00	0	Unrestricted	9.59	0.00	0.00	0.00
26	1					837	Unrestricted	75	0.00	0	Unrestricted	17.09	0.00	0.00	0.00
27	1		1			367 <	1616	75	49.00	23	296	7.55	5.15	80.34	3.00 +
28	1		1			355	1633	75	49.00	22	314	7.91	5.51	81.56	2.98
29	1		2			4	908	65	50.00	0	20329	3.69	2.49	50.30	0.02
30	1		1	1	D	367 <	1800	22	7.24	97	-7	94.94	91.52	167.13	14.20 +
32	1 B		5			100	1940	75	35.13	10	828	31.71	7.71	47.26	1.03
33	1 B					86	Unrestricted	75	41.00	0	Unrestricted	36.00	0.00	0.00	0.00
36	1		1			230	1056	75	33.95	23	294	18.85	16.45	93.52	2.99
37	1		1			52	1040	75	35.00	5	1713	11.25	9.45	74.85	0.35

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	976.04	400.49	2.44	42.79	325.17	5225.02	162.56	0.00	5387.58
Bus	27.46	2.44	11.23	0.45	0.16	8.72	0.28	0.00	9.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	1003.50	402.94	2.49	43.24	325.33	5233.74	162.83	0.00	5396.57

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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

Filename: J2 2038 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 2 20220209
Report generation date: 09/02/2022 11:53:33

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	OCSC\joshua.tai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

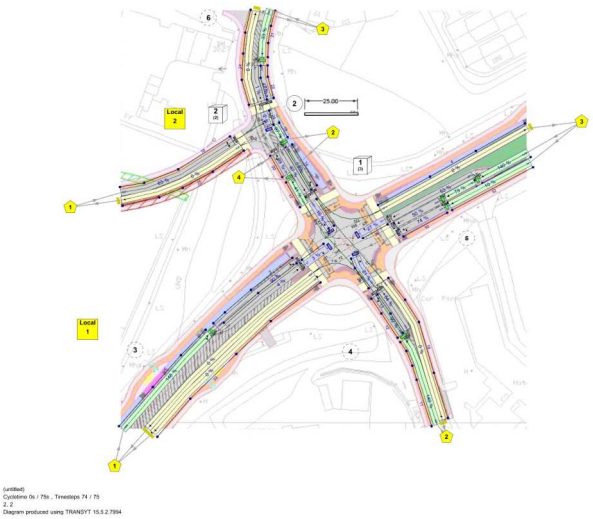
Units

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	PCU	PCU	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



A2 - 2039 DM
D2 - PM*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 14/1)
Warning	OD Matrix Flows	Local Matrix 1	Flow Inconsistency between OD Matrix 2 and OD Matrix 1. (Traffic Stream 30/1)

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 (PCU-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	09/02/2022 11:50:41	09/02/2022 11:50:42	08:00	75	8493.98	586.41	148.19	1/1	5	16	12/1	1/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2039 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				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)
75		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	90	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, 0.05		✓	1, 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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			3
2			1
3			1
4			
5			5
6			1
8			5
9			1
10			1
11			4
12			1
13			1
14			1
16			
17			
18			2
19			
20			2
21			6
22			2
23			2
24			
25			
26			
27			1
28			1
29			2
30			1
32			5
33			
36			1
37			1

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
1	1	R132 (S) initial app	R132 (S) initial app		100.00	✓	Sum of lanes	2078					Normal	
2	1	R132 (S) left/straight	R132 (S) left/straight		55.00	✓	Sum of lanes	2032	✓	1800	✓		Normal	
3	1				55.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				150.00								Normal	
5	1				50.00	✓	Sum of lanes	2080					Normal	
6	1			✓	47.20	✓	Sum of lanes	2080	✓	1800	✓		Normal	
8	1				20.00	✓	Sum of lanes	2080	✓	1800			Normal	
9	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
10	1				30.00	✓	Sum of lanes	1774	✓	1800	✓		Normal, Bus	
11	1				100.00	✓	Sum of lanes	1940					Normal	
12	1				30.00	✓	Sum of lanes	1899	✓	1800	✓		Normal	
13	1				30.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
14	1				30.00	✓	Sum of lanes	2011	✓	1800	✓		Normal	
16	1				30.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
17	1				55.00	✓	Sum of lanes	1940	✓	1800			Normal, Bus	
18	1				100.00	✓	Sum of lanes	1552			✓		Normal	
19	1			✓	111.42								Normal, Bus	
20	1				10.00	✓	Sum of lanes	1828	✓	1800	✓		Normal	
21	1				50.00	✓	Sum of lanes	2080					Normal	
22	1				20.00	✓	Sum of lanes	1881	✓	1800	✓		Normal	
23	1				25.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
24	1			✓	68.27								Normal	
25	1			✓	79.89								Normal	
26	1			✓	142.46								Normal	
27	1				20.00	✓	Sum of lanes	1872				✓	Normal	
28	1				20.00	✓	Sum of lanes	1909				✓	Normal	
29	1				10.00	✓	Sum of lanes	1664				✓	Normal	
30	1			✓	28.53	✓	Sum of lanes	1800			✓		Normal	
32	1				100.00	✓	Sum of lanes	1940					Bus	
33	1				150.00								Bus	
36	1				20.00	✓	Sum of lanes	1900				✓	Normal	
37	1				15.00	✓	Sum of lanes	1855				✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	5	92.87		2078
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	32	20.51		2032
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)											
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
6	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
8	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
9	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
10	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	89	14.28	✓	1774
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	24	16.57	✓	1899
13	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
14	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	54	23.54		2011
16	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
17	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
18	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	6.00	✓	1552
19	1	1	(untitled)											
20	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	45	10.99	✓	1828
21	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
22	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	47.52	✓	1881
23	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
24	1	1	(untitled)											
25	1	1	(untitled)											
26	1	1	(untitled)											
27	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	13.52		1872
28	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	16.79		1909
29	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	6.00		1664
30	1	1	(untitled)											1800
32	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
33	1	1	(untitled)											
36	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	15.82		1900
37	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	12.36		1855

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
2	1	1	A	
3	1	1	B	
6	1	1	B	
9	1	1	A	
10	1	1	A	
12	1	1	C	
13	1	1	D	
14	1	1	C	
18	1	2	C	
20	1	2	B	
22	1	2	A	
23	1	2	A	
30	1	1	D	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
27	1	AllTraffic	✓	0	✓	13.52	
28	1	AllTraffic	✓	0	✓	16.79	
29	1	AllTraffic	✓	0	✓	6.00	
36	1	AllTraffic	✓	0	✓	15.82	
37	1	AllTraffic	✓	0	✓	12.36	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	12/1	100		0	0
		TrafficStream	14/1	100		0	0
		TrafficStream	20/1	100		0	0
		TrafficStream	2/1	100		0	0
		TrafficStream	9/1	100		0	0
		TrafficStream	10/1	100		0	0

Signal Timings

Network Default: 75s cycle time; 75 steps

Interstage Matrix for Controller Stream 1

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

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	5	0
	2	6	0	0
	3	0	0	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,B	25	52	27	1	7
	2	✓	2	B	52	59	7	1	1
	3	✓	3	C,D	61	3	17	1	7
	4	✓	4	D	3	11	8	1	1
	5	✓	5	E	11	25	14	1	14
2	1	✓	1	A,B	11	51	40	1	7
	2	✓	2	C	56	3	12	1	7
	3	✓	3	D	3	11	8	1	8

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE					PER PCU			QUE
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1	R132 (S) initial app	3			1066 <	2078	75	49.04	148	-39	614.54	602.54	388.39	189.15 +
2	1	R132 (S) left/straight	1	1	A	681 <	2032	27	0.00	90	0	54.46	47.86	82.52	12.22 +
3	1		1	1	B	38	2080	34	16.00	4	2171	18.79	12.19	34.55	0.28
4	1					1011	Unrestricted	75	0.00	0	Unrestricted	18.00	0.00	0.00	0.00
5	1		5			1523 <	2080	75	35.81	140	-36	536.47	530.47	369.92	241.58 +
6	1		1	1	B	300	2080	34	19.82	53	69	27.02	21.35	89.05	2.98
8	1		5			787 <	2080	75	39.00	79	14	15.70	13.30	26.25	4.33 +
9	1		1	1	A	391	2080	27	0.00	50	79	23.88	20.28	46.08	3.76
10	1 NB		1	1	A	489	1774	27	0.00	74	22	28.75	24.46	49.35	5.06
11	1		4			929 <	1940	75	49.38	140	-36	549.48	537.48	370.47	147.94 +
12	1		1	1	C	352 <	1899	17	2.94	92	-2	79.21	75.61	108.18	8.45 +
13	1		1	1	D	311	2080	27	11.20	54	67	21.36	17.76	68.10	2.40
14	1		1	1	C	440 <	2011	17	0.00	91	-1	62.18	58.58	85.53	8.23 +
16	1 NB					724	1940	65	11.00	37	141	4.15	0.55	0.00	0.11
17	1 NB					787	1940	75	21.00	41	122	7.23	0.63	0.00	0.14
18	1		2	2	C	197	1552	12	0.00	63	42	45.71	33.71	103.37	3.77
19	1 NB					658	Unrestricted	75	10.00	0	Unrestricted	13.82	0.00	0.00	0.00
20	1		2	2	B	792 <	1828	40	0.00	69	31	6.85	5.65	15.29	2.20 +
21	1		6			563	2080	65	11.92	33	172	7.73	1.73	21.26	2.58
22	1		2	2	A	547	1881	40	0.43	47	93	8.90	6.50	31.39	3.10
23	1		2	2	A	16	2080	40	40.00	1	7280	7.47	4.47	30.87	0.09
24	1					453	Unrestricted	65	10.00	0	Unrestricted	8.19	0.00	0.00	0.00
25	1					375	Unrestricted	65	19.00	0	Unrestricted	9.59	0.00	0.00	0.00
26	1					706	Unrestricted	75	0.00	0	Unrestricted	17.09	0.00	0.00	0.00
27	1		1			231	1453	75	46.00	16	466	13.21	10.81	85.80	3.00
28	1		1			311	1458	75	44.00	21	322	10.29	7.89	84.10	2.98
29	1		2			16	772	65	45.00	2	4243	8.84	7.64	63.66	0.16
30	1		1	1	D	231 <	1800	27	13.73	67	33	32.48	29.06	102.88	5.11 +
32	1 B		5			94	1940	75	39.13	10	788	33.81	9.81	53.37	1.08
33	1 B					72	Unrestricted	75	48.00	0	Unrestricted	36.00	0.00	0.00	0.00
36	1		1			300 <	1205	75	37.11	27	230	16.27	13.87	92.90	3.01 +
37	1		1			38	1187	75	40.00	3	2676	8.75	6.95	63.36	0.28

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	942.20	617.08	1.53	40.51	545.16	8316.52	166.72	0.00	8483.23
Bus	25.47	2.43	10.47	0.53	0.20	10.44	0.30	0.00	10.75
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	967.67	619.51	1.56	41.04	545.36	8326.96	167.02	0.00	8493.98

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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 2023 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 17:09:34

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcginvney
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

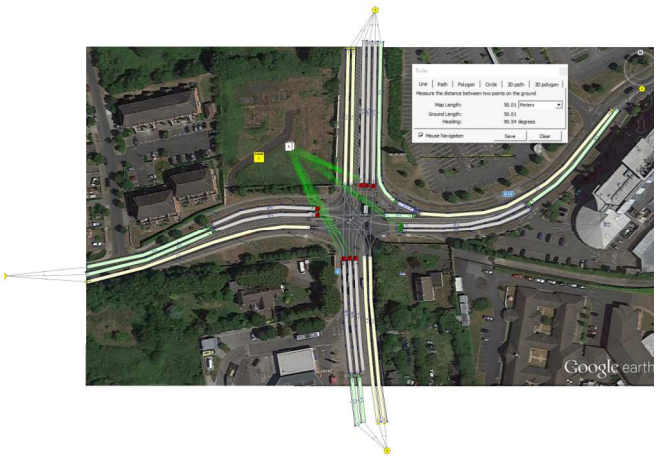
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - J3 - 2024 DN
D1 - AM PEAK*

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 (PCU-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	24/05/2021 17:09:25	24/05/2021 17:09:26	08:00	130	2203.32	151.85	110.77	4/1	2	8	4/1	9/1	4/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2024 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1896	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1859	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.14								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	44	18.21	✓	1896
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	52	13.71	✓	1859
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	7	7	7
	2	7	0	6	6	6
	3	6	5	0	6	6
	4	6	7	7	0	5
	5	5	7	7	6	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	129	19	20	1	7
	2	✓	2	B,G	26	86	40	1	5
	3	✓	3	C,D,G	72	86	14	1	6
	4	✓	4	D,E	92	102	10	1	1
	5	✓	5	E,F	107	124	17	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					84	1630	130	0.00	5	1646	9.06	0.06	0.00	0.00	
3	1			1	D	101	2080	30	0.00	20	342	49.63	40.63	78.64	2.93	
4	1			1	D	435 <	2105	30	0.00	111	-19	861.21	849.21	248.02	110.38 +	
5	1			1	C	176	1957	15	0.00	73	23	83.45	74.45	108.14	6.92	
6	1			1	G	370	1760	60	0.00	45	101	32.75	24.95	63.01	8.42	
7	1			1	B	570 <	2034	42	0.00	85	6	53.85	46.05	59.77	12.36 +	
8	1					370	2105	130	0.00	18	412	12.18	0.18	0.00	0.02	
9	1					570	2105	130	46.39	42	114	23.18	11.18	47.32	10.13	
10	1			1	E	270	1896	32	0.00	56	60	55.55	47.15	86.50	8.44	
11	1					135	2080	130	0.00	6	1267	9.06	0.06	0.00	0.00	
12	1					673	2080	130	4.98	34	168	9.53	0.53	3.24	1.39	
13	1			1	E	368 <	2105	32	0.00	69	31	60.77	52.37	92.02	12.24 +	
14	1			1	F	170	1914	17	0.66	67	35	75.83	66.83	99.34	6.11	
15	1			1	A	293 <	1859	20	0.00	98	-8	227.16	216.96	190.74	20.91 +	
16	1			1	A	56	1963	20	17.00	18	406	92.70	82.50	100.93	2.06	
17	1					359	1728	130	59.14	38	136	34.76	16.76	50.35	6.25	
18	1					581	Unrestricted	130	15.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					365	Unrestricted	130	15.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					434	Unrestricted	130	36.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					586	Unrestricted	130	35.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					405	Unrestricted	130	24.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					438	2105	130	69.00	21	333	2.62	0.22	0.00	0.03	
24	1					522	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					84	994	130	0.00	8	965	1.65	0.45	4.27	1.45	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	798.26	178.46	4.47	151.85	2156.30	47.02	0.00	2203.32
Bus	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
Pedestrians								
TOTAL	798.26	178.46	4.47	151.85	2156.30	47.02	0.00	2203.32

- *< = 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

Filename: Junction 3 2023 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 17:10:28

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

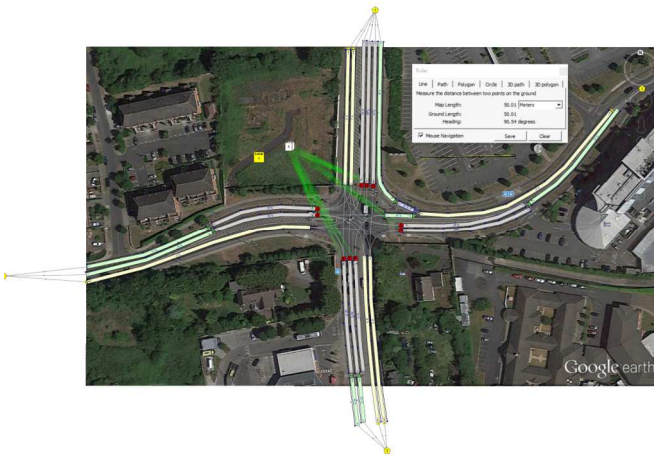
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
2: 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - J3 - 2024 DN
D2 - PM PEAK*

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 (PCU-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	24/05/2021 17:10:12	24/05/2021 17:10:13	17:15	130	2235.99	153.28	121.22	12/1	2	8	5/1	12/1	12/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2024 DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				17:15	

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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1868	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1859	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.14								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	63	18.21	✓	1868
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	52	13.71	✓	1859
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	7	7	7
	2	7	0	6	6	6
	3	6	5	0	6	6
	4	6	7	7	0	5
	5	5	7	7	6	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	3	38	35	1	7
	2	✓	2	B,G	45	65	20	1	5
	3	✓	3	C,D,G	71	91	20	1	6
	4	✓	4	D,E	97	103	6	1	1
	5	✓	5	E,F	108	128	20	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					139	1630	130	0.00	9	955	9.10	0.10	0.00	0.00	
3	1			1	D	101	2080	32	0.00	19	370	47.92	38.92	76.77	2.92	
4	1			1	D	474 <	2105	32	0.00	89	1	168.12	156.12	123.49	20.47 +	
5	1			1	C	307 <	1957	21	0.00	93	-3	111.46	102.46	129.24	14.71 +	
6	1			1	G	224	1760	46	0.00	35	156	39.70	31.90	69.64	5.63	
7	1			1	B	310 <	2034	22	0.00	86	4	87.95	80.15	110.57	12.50 +	
8	1					224	2105	130	0.00	11	746	12.10	0.10	0.00	0.01	
9	1					310	2105	130	9.60	16	466	12.41	0.41	6.01	0.96	
10	1			1	E	376 <	1868	31	0.00	82	10	81.18	72.78	94.05	12.82 +	
11	1					206	2080	130	0.00	10	809	9.10	0.10	0.00	0.01	
12	1					888 <	2080	130	84.22	121	-26	366.92	357.92	271.83	106.25 +	
13	1			1	E	428 <	2105	31	0.00	83	9	93.19	84.79	86.64	13.45 +	
14	1			1	F	134	1914	20	1.42	44	103	87.08	78.08	80.76	3.92	
15	1			1	A	306	1859	35	0.00	59	51	56.11	45.91	86.36	9.56	
16	1			1	A	108	1963	35	0.00	20	353	47.03	36.83	75.56	2.97	
17	1					414	1728	130	0.00	24	276	18.33	0.33	0.00	0.04	
18	1					594	Unrestricted	130	20.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					305	Unrestricted	130	21.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					691	Unrestricted	130	25.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					546	Unrestricted	130	53.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					343	Unrestricted	130	27.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					278	2105	130	87.00	13	580	2.53	0.13	0.00	0.01	
24	1					417	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					139	1159	130	0.00	12	650	1.58	0.38	3.88	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	801.34	179.99	4.45	153.28	2176.57	59.42	0.00	2235.99
Bus	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
Pedestrians								
TOTAL	801.34	179.99	4.45	153.28	2176.57	59.42	0.00	2235.99

- *< = 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***

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 2023 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 17:01:55

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcginvney
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

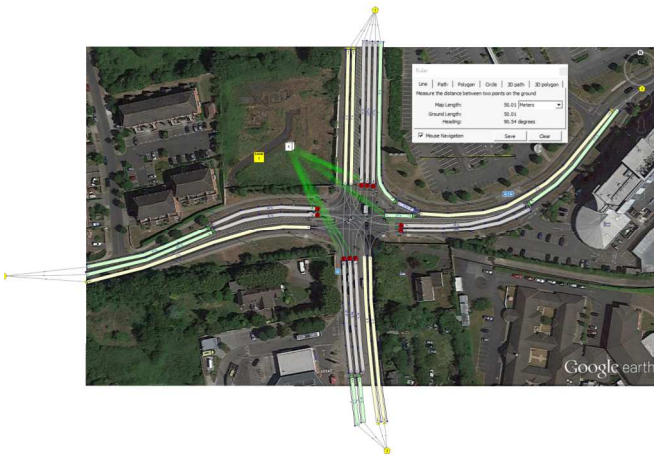
Units

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	PCU	PCU	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



2024 DN
Cycletime 0s / 130s , Timesteps 129 / 130
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - J3 - 2024 DS
D1 - AM PEAK*

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 (PCU-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	24/05/2021 16:59:43	24/05/2021 16:59:44	08:00	130	2817.73	193.59	117.12	17/1	4	17	4/1	17/1	17/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2024 DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1896	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1861	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	44	18.21	✓	1896
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	51	13.71	✓	1861
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	0	20	20	1	7
	2	✓	2	B,G	27	67	40	1	7
	3	✓	3	C,D,G	73	87	14	1	6
	4	✓	4	D,E	93	103	10	1	1
	5	✓	5	E,F	108	125	17	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					85	1630	130	0.00	5	1626	9.06	0.06	0.00	0.00	
3	1			1	D	101	2080	30	0.00	20	342	49.63	40.63	78.64	2.93	
4	1			1	D	435 <	2105	30	0.00	111	-19	681.06	669.06	248.02	88.63 +	
5	1			1	C	179	1957	15	0.00	74	21	84.73	75.73	109.08	7.09	
6	1			1	G	394	1760	67	0.00	43	110	28.31	20.51	57.41	8.17	
7	1			1	B	573 <	2034	40	0.00	89	1	72.15	64.35	64.38	13.46 +	
8	1					394	2105	130	0.00	19	381	12.20	0.20	0.00	0.02	
9	1					583 <	2105	130	94.62	102	-12	140.50	128.50	156.19	34.92 +	
10	1			1	E	274	1896	32	0.00	57	58	55.81	47.41	86.64	8.58	
11	1					137	2080	130	0.00	7	1266	9.06	0.06	0.00	0.00	
12	1					679	2080	130	6.22	34	163	9.61	0.61	4.74	1.79	
13	1			1	E	372 <	2105	32	0.00	70	29	61.09	52.69	91.59	12.31 +	
14	1			1	F	170	1914	17	0.66	67	35	75.77	66.77	98.40	6.06	
15	1			1	A	293 <	1861	20	0.00	97	-8	236.55	226.35	189.11	20.86 +	
16	1			1	A	60	1963	20	17.00	19	377	102.96	92.76	101.00	2.18	
17	1					353 <	1728	130	103.47	117	-23	448.78	430.78	351.60	48.78 +	
18	1					599	Unrestricted	130	8.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					379	Unrestricted	130	8.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					444	Unrestricted	130	36.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					587	Unrestricted	130	37.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					404	Unrestricted	130	24.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					438	2105	130	71.00	21	332	2.62	0.22	0.00	0.03	
24	1					523	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					85	992	130	0.00	9	950	1.65	0.45	4.32	1.45	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	809.58	220.58	3.67	193.59	2749.03	68.70	0.00	2817.73
Bus	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
Pedestrians								
TOTAL	809.58	220.58	3.67	193.59	2749.03	68.70	0.00	2817.73

- *< = 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***

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 2023 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 17:03:10

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

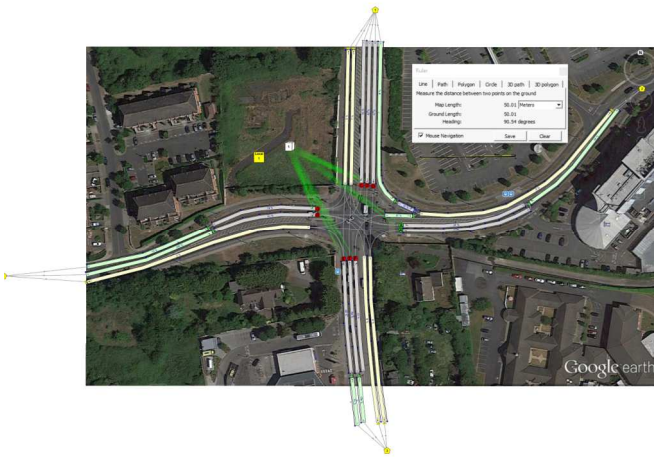
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - J3 - 2024 DS
D2 - PM PEAK*

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 (PCU-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	24/05/2021 17:00:40	24/05/2021 17:00:41	17:15	130	2860.15	196.48	124.26	12/1	4	17	5/1	12/1	12/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2024 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				17:15	

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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2033	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1867	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1863	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	54	22.82		2033
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	64	18.21	✓	1867
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	50	13.71	✓	1863
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	123	28	35	1	7
	2	✓	2	B,G	35	55	20	1	7
	3	✓	3	C,D,G	61	81	20	1	6
	4	✓	4	D,E	87	93	6	1	1
	5	✓	5	E,F	98	118	20	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					139	1630	130	0.00	9	955	9.10	0.10	0.00	0.00	
3	1			1	D	101	2080	32	0.00	19	370	47.92	38.92	76.77	2.92	
4	1			1	D	472 <	2105	32	0.00	89	1	169.16	157.16	123.23	20.47 +	
5	1			1	C	316 <	1957	21	0.00	95	-6	208.37	199.37	163.20	18.45 +	
6	1			1	G	250	1760	53	0.00	34	163	34.98	27.18	64.93	5.96	
7	1			1	B	296 <	2033	20	0.00	90	0	150.77	142.97	122.75	13.41 +	
8	1					250	2105	130	0.00	12	658	12.12	0.12	0.00	0.01	
9	1					314 <	2105	130	111.73	106	-15	218.26	206.26	196.17	24.60 +	
10	1			1	E	379 <	1867	31	0.00	82	9	81.86	73.46	94.61	13.01 +	
11	1					210	2080	130	0.00	10	791	9.10	0.10	0.00	0.01	
12	1					906 <	2080	130	84.43	124	-28	401.26	392.26	285.37	116.56 +	
13	1			1	E	429 <	2105	31	0.00	83	9	93.31	84.91	86.61	13.47 +	
14	1			1	F	131	1914	20	1.42	43	108	86.76	77.76	80.48	3.81	
15	1			1	A	331	1863	35	0.00	64	40	57.88	47.68	87.32	10.44	
16	1			1	A	166	1963	35	0.00	31	195	48.90	38.70	78.02	4.68	
17	1					497	1728	130	0.00	29	213	18.42	0.42	0.00	0.06	
18	1					637	Unrestricted	130	3.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					345	Unrestricted	130	3.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					716	Unrestricted	130	24.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					542	Unrestricted	130	55.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					345	Unrestricted	130	28.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					269	2105	130	89.00	13	605	2.53	0.13	0.00	0.01	
24	1					408	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					139	1170	130	0.00	12	657	1.56	0.36	3.88	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	838.07	224.41	3.73	196.48	2789.97	70.19	0.00	2860.15
Bus	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
Pedestrians								
TOTAL	838.07	224.41	3.73	196.48	2789.97	70.19	0.00	2860.15

- *< = 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***

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 2024 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:56:16

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

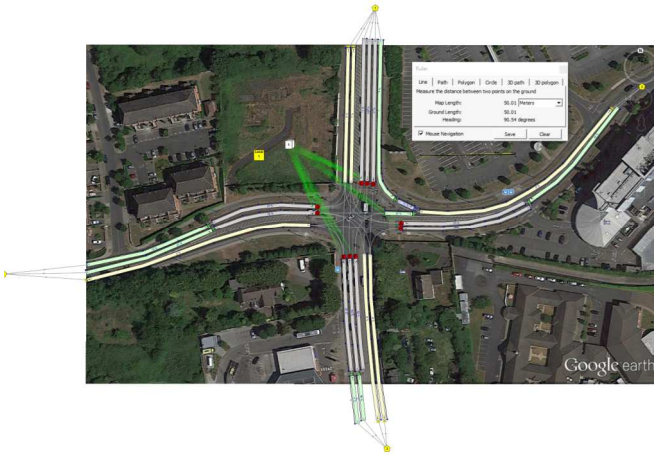
Units

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	PCU	PCU	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



2024 DN
Cycletime 0s / 130s , Timesteps 129 / 130
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - J3 - 2024 DM
D1 - AM PEAK*

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 (PCU-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	24/05/2021 16:51:35	24/05/2021 16:51:36	08:00	130	1223.32	83.45	113.75	4/1	1	4	4/1	9/1	4/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2024 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2033	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1904	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1861	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	54	22.82		2033
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	39	18.21	✓	1904
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	51	13.71	✓	1861
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	0	20	20	1	7
	2	✓	2	B,G	27	67	40	1	7
	3	✓	3	C,D,G	73	87	14	1	6
	4	✓	4	D,E	93	103	10	1	1
	5	✓	5	E,F	108	125	17	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					114	1630	130	0.00	7	1187	9.08	0.08	0.00	0.00	
3	1			1	D	101	2080	30	0.00	20	342	49.63	40.63	78.64	2.93	
4	1			1	D	435 <	2105	30	0.00	114	-21	454.36	442.36	268.11	61.23 +	
5	1			1	C	41	1957	15	0.00	17	429	61.63	52.63	88.87	1.47	
6	1			1	G	246	1760	67	0.00	27	237	25.70	17.90	52.81	4.70	
7	1			1	B	544 <	2033	40	0.00	85	6	56.40	48.60	62.69	12.38 +	
8	1					246	2105	130	0.00	12	670	12.11	0.11	0.00	0.01	
9	1					544	2105	130	45.25	40	127	22.35	10.35	45.03	9.20	
10	1			1	E	252	1904	32	0.00	52	73	54.35	45.95	85.81	7.82	
11	1					126	2080	130	0.00	6	1386	9.06	0.06	0.00	0.00	
12	1					619	2080	130	0.00	30	202	9.37	0.37	0.00	0.06	
13	1			1	E	334	2105	32	0.00	63	44	58.03	49.63	90.73	10.99	
14	1			1	F	159	1914	17	0.60	62	45	73.15	64.15	99.22	5.71	
15	1			1	A	261	1861	20	0.00	87	4	97.31	87.11	117.90	11.32	
16	1			1	A	74	1963	20	0.00	23	286	59.44	49.24	86.71	2.32	
17	1					335	1728	130	0.00	19	364	18.25	0.25	0.00	0.02	
18	1					494	Unrestricted	130	6.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					312	Unrestricted	130	6.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					268	Unrestricted	130	40.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					581	Unrestricted	130	37.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					381	Unrestricted	130	24.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					411	2105	130	71.00	20	361	2.61	0.21	0.00	0.02	
24	1					525	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					114	1022	130	0.00	11	707	1.73	0.53	5.11	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	706.30	107.00	6.60	83.45	1185.04	38.28	0.00	1223.32
Bus	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
Pedestrians								
TOTAL	706.30	107.00	6.60	83.45	1185.04	38.28	0.00	1223.32

- *< = 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 2024 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:53:58

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

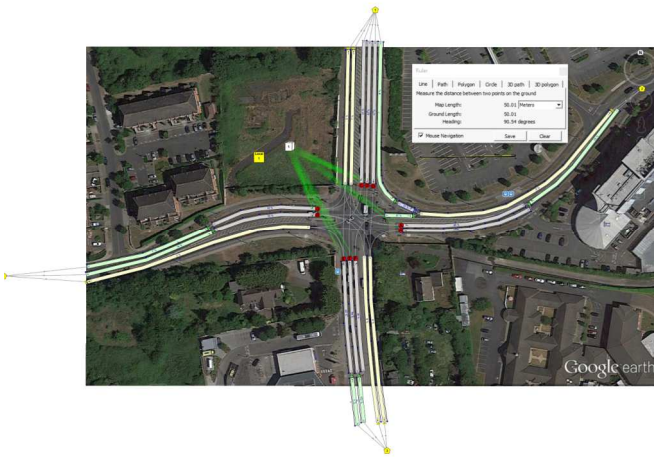
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
2: 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - J3 - 2024 DM
D2 - PM PEAK*

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 (PCU-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	24/05/2021 16:53:47	24/05/2021 16:53:47	17:15	130	1341.33	91.10	109.20	12/1	1	4	7/1	12/1	12/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2024 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				17:15	

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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1875	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1857	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	58	18.21	✓	1875
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	13.71	✓	1857
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	0	27	27	1	7
	2	✓	2	B,G	34	55	21	1	7
	3	✓	3	C,D,G	61	81	20	1	6
	4	✓	4	D,E	87	93	6	1	1
	5	✓	5	E,F	98	125	27	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					146	1630	130	0.00	9	905	9.11	0.11	0.00	0.00	
3	1			1	D	101	2080	32	0.00	19	370	47.92	38.92	76.77	2.92	
4	1			1	D	443	2105	32	0.00	83	9	75.02	63.02	104.02	16.78	
5	1			1	C	80	1957	21	0.00	24	273	57.53	48.53	85.94	2.48	
6	1			1	G	144	1760	54	0.00	19	365	31.95	24.15	61.20	3.18	
7	1			1	B	296 <	2034	21	0.00	86	5	89.50	81.70	113.97	12.30 +	
8	1					144	2105	130	0.00	7	1216	12.06	0.06	0.00	0.00	
9	1					296	2105	130	2.65	14	527	12.16	0.16	0.64	0.26	
10	1			1	E	347	1875	38	0.00	62	46	59.23	50.83	76.30	9.56	
11	1					181	2080	130	0.00	9	934	9.08	0.08	0.00	0.00	
12	1					885 <	2080	130	79.35	109	-18	214.78	205.78	203.98	71.04 +	
13	1			1	E	500 <	2105	38	0.00	79	14	74.20	65.80	72.12	13.05 +	
14	1			1	F	145	1914	27	2.36	36	153	70.12	61.12	68.05	3.56	
15	1			1	A	272	1857	27	0.00	68	32	66.58	56.38	94.18	9.44	
16	1			1	A	160	1963	27	0.00	38	138	56.50	46.30	85.05	4.91	
17	1					432	1728	130	0.00	25	260	18.35	0.35	0.00	0.04	
18	1					652	Unrestricted	130	5.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					298	Unrestricted	130	5.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					409	Unrestricted	130	25.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					522	Unrestricted	130	56.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					324	Unrestricted	130	34.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					283	2105	130	82.00	13	570	2.53	0.13	0.00	0.01	
24	1					429	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					146	1155	130	0.00	13	612	1.58	0.38	3.83	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	728.03	115.36	6.31	91.10	1293.57	47.76	0.00	1341.33
Bus	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
Pedestrians								
TOTAL	728.03	115.36	6.31	91.10	1293.57	47.76	0.00	1341.33

- *< = 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 2038 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:44:25

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcginvney
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

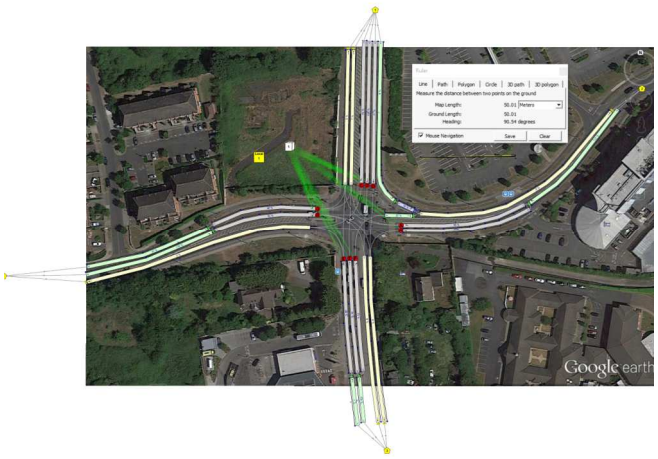
Units

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	PCU	PCU	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



2024 DN
Cycletime 0s / 130s , Timesteps 129 / 130
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - J3 - 2039 DN
D1 - AM PEAK*

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 (PCU-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	24/05/2021 16:44:17	24/05/2021 16:44:18	08:00	130	4819.80	332.23	135.27	4/1	5	21	4/1	17/1	4/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2039 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1890	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1859	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	48	18.21	✓	1890
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	52	13.71	✓	1859
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	0	20	20	1	7
	2	✓	2	B,G	27	67	40	1	7
	3	✓	3	C,D,G	73	87	14	1	6
	4	✓	4	D,E	93	103	10	1	1
	5	✓	5	E,F	108	125	17	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
2	1					99	1630	130	0.00	6	1382	9.07	0.07	0.00	0.00
3	1			1	D	101	2080	30	0.00	20	342	49.63	40.63	78.64	2.93
4	1			1	D	435 <	2105	30	0.00	135	-33	1059.05	1047.05	372.91	134.31 +
5	1			1	C	204	1957	15	0.00	85	6	100.92	91.92	119.77	8.96
6	1			1	G	428	1760	67	0.00	46	94	29.03	21.23	59.10	9.22
7	1			1	B	573 <	2034	40	0.00	89	1	72.38	64.58	63.82	13.46 +
8	1					428	2105	130	0.00	20	343	12.22	0.22	0.00	0.03
9	1					665 <	2105	130	94.62	116	-22	311.84	299.84	246.98	69.48 +
10	1			1	E	281	1890	32	0.00	59	53	66.66	58.26	82.45	8.38
11	1					146	2080	130	0.00	7	1182	9.07	0.07	0.00	0.00
12	1					815 <	2080	130	82.80	108	-17	201.05	192.05	196.25	62.16 +
13	1			1	E	435 <	2105	32	0.00	81	11	89.58	81.18	84.34	13.28 +
14	1			1	F	185	1914	17	0.66	73	24	102.37	93.37	90.26	6.07
15	1			1	A	293 <	1859	20	0.00	98	-8	237.33	227.13	189.46	20.91 +
16	1			1	A	56	1963	20	17.00	18	409	102.85	92.65	100.93	2.04
17	1					349 <	1728	130	103.75	121	-26	518.66	500.66	372.62	55.05 +
18	1					677	Unrestricted	130	6.00	0	Unrestricted	12.81	0.00	0.00	0.00
19	1					388	Unrestricted	130	7.00	0	Unrestricted	12.82	0.00	0.00	0.00
20	1					478	Unrestricted	130	36.00	0	Unrestricted	19.44	0.00	0.00	0.00
21	1					586	Unrestricted	130	37.00	0	Unrestricted	15.26	0.00	0.00	0.00
22	1					405	Unrestricted	130	24.00	0	Unrestricted	14.80	0.00	0.00	0.00
23	1					457	2105	130	71.00	22	315	2.64	0.24	0.00	0.03
24	1					556	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00
25	1					99	966	130	0.00	10	778	1.74	0.54	4.96	1.46

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	861.89	360.96	2.39	332.23	4717.69	102.11	0.00	4819.80
Bus	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
Pedestrians								
TOTAL	861.89	360.96	2.39	332.23	4717.69	102.11	0.00	4819.80

- *< = 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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+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 3 2038 DN.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:42:45

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcginvney
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

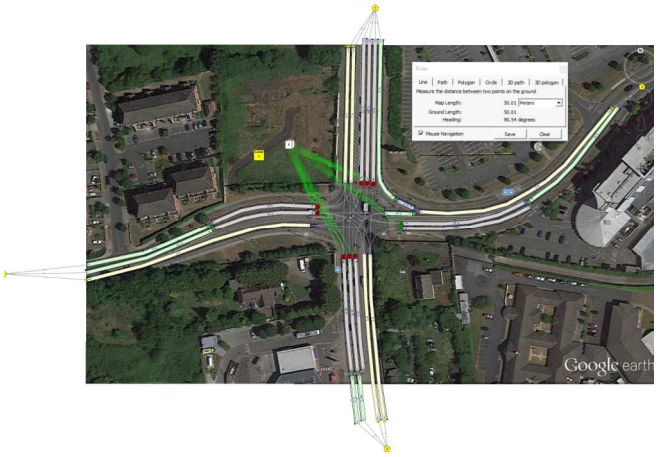
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - J3 - 2039 DN
D2 - PM PEAK*

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 (PCU-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	24/05/2021 16:42:37	24/05/2021 16:42:38	17:15	130	4957.69	342.90	148.12	12/1	5	21	4/1	12/1	12/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2039 DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				17:15	

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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1862	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1859	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	67	18.21	✓	1862
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	52	13.71	✓	1859
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	123	28	35	1	7
	2	✓	2	B,G	35	55	20	1	7
	3	✓	3	C,D,G	61	81	20	1	6
	4	✓	4	D,E	87	93	6	1	1
	5	✓	5	E,F	98	118	20	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					160	1630	130	0.00	10	817	9.12	0.12	0.00	0.01	
3	1			1	D	101	2080	32	0.00	19	370	47.92	38.92	76.77	2.92	
4	1			1	D	463 <	2105	32	0.00	109	-17	430.40	416.40	227.54	61.68 +	
5	1			1	C	309 <	1957	21	0.00	107	-16	326.35	317.35	226.70	32.68 +	
6	1			1	G	258	1760	53	0.00	35	155	35.17	27.37	65.87	6.15	
7	1			1	B	296 <	2034	20	0.00	90	0	150.86	143.06	121.57	13.40 +	
8	1					258	2105	130	0.00	12	634	12.12	0.12	0.00	0.01	
9	1					361 <	2105	130	111.73	122	-26	397.29	385.29	278.16	45.23 +	
10	1			1	E	382 <	1862	31	0.00	83	8	81.87	73.47	95.60	13.25 +	
11	1					228	2080	130	2.68	11	704	9.11	0.11	0.24	0.20	
12	1					1059 <	2080	130	85.32	148	-39	625.38	616.38	364.80	198.67 +	
13	1			1	E	433 <	2105	31	0.00	84	8	93.91	85.51	86.49	13.60 +	
14	1			1	F	128	1914	20	0.42	42	114	86.13	77.13	79.59	3.67	
15	1			1	A	357	1859	35	0.00	69	30	60.24	50.04	90.53	11.69	
16	1			1	A	122	1963	35	0.00	22	301	47.46	37.26	76.12	3.35	
17	1					479	1728	130	0.00	28	225	18.40	0.40	0.00	0.05	
18	1					623	Unrestricted	130	2.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					317	Unrestricted	130	2.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					734	Unrestricted	130	23.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					541	Unrestricted	130	55.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					366	Unrestricted	130	27.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					266	2105	130	88.00	13	612	2.52	0.12	0.00	0.01	
24	1					426	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					160	1174	130	0.00	14	560	1.60	0.40	4.13	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	856.47	371.45	2.31	342.90	4869.22	88.47	0.00	4957.69
Bus	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
Pedestrians								
TOTAL	856.47	371.45	2.31	342.90	4869.22	88.47	0.00	4957.69

- *< = 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***

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 2038 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:35:10

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

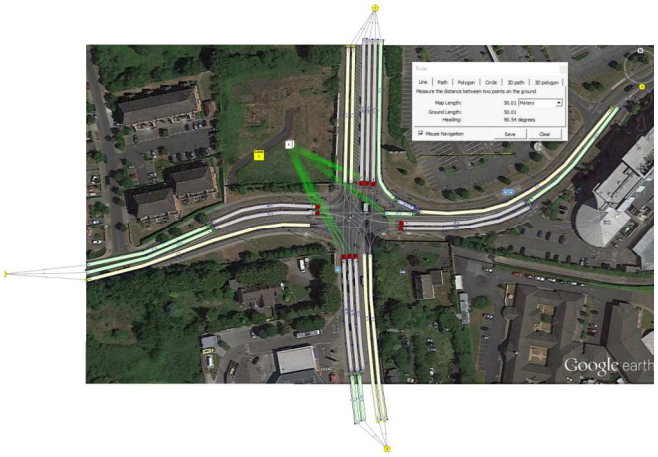
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - J3 - 2039 DS
D1 - AM PEAK*

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 (PCU-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	24/05/2021 16:35:03	24/05/2021 16:35:04	08:00	130	5233.65	361.07	135.92	17/1	5	21	4/1	17/1	17/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2039 DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1890	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1859	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	48	18.21	✓	1890
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	52	13.71	✓	1859
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	0	20	20	1	7
	2	✓	2	B,G	27	67	40	1	7
	3	✓	3	C,D,G	73	87	14	1	6
	4	✓	4	D,E	93	103	10	1	1
	5	✓	5	E,F	108	125	17	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					99	1630	130	0.00	6	1382	9.07	0.07	0.00	0.00	
3	1			1	D	101	2080	30	0.00	20	342	49.63	40.63	78.64	2.93	
4	1			1	D	435 <	2105	30	0.00	135	-33	999.09	987.09	372.91	127.07 +	
5	1			1	C	207	1957	15	0.00	86	5	103.90	94.90	121.89	9.25	
6	1			1	G	452	1760	67	0.00	49	83	29.58	21.78	59.77	9.76	
7	1			1	B	573 <	2034	40	0.00	89	1	72.42	64.62	63.73	13.46 +	
8	1					452	2105	130	0.00	21	319	12.23	0.23	0.00	0.03	
9	1					680 <	2105	130	94.62	119	-24	343.04	331.04	260.29	76.62 +	
10	1			1	E	282	1890	32	0.00	59	53	66.67	58.27	82.47	8.41	
11	1					147	2080	130	0.00	7	1173	9.07	0.07	0.00	0.00	
12	1					820 <	2080	130	82.87	109	-17	211.93	202.93	202.08	64.87 +	
13	1			1	E	435 <	2105	32	0.00	81	11	89.61	81.21	84.33	13.29 +	
14	1			1	F	184	1914	17	0.66	72	25	101.85	92.85	89.89	6.00	
15	1			1	A	293 <	1859	20	0.00	98	-8	237.23	227.03	189.52	20.91 +	
16	1			1	A	60	1963	20	16.00	19	373	102.98	92.78	101.01	2.20	
17	1					353 <	1728	130	103.43	136	-34	774.26	756.26	425.00	80.78 +	
18	1					691	Unrestricted	130	6.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					402	Unrestricted	130	7.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					485	Unrestricted	130	36.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					587	Unrestricted	130	37.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					403	Unrestricted	130	24.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					453	2105	130	71.00	22	318	2.63	0.23	0.00	0.03	
24	1					552	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					99	968	130	0.00	10	780	1.73	0.53	4.96	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	872.56	390.16	2.24	361.07	5127.20	106.45	0.00	5233.65
Bus	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
Pedestrians								
TOTAL	872.56	390.16	2.24	361.07	5127.20	106.45	0.00	5233.65

- *< = 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***

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 2038 DS.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:33:39

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

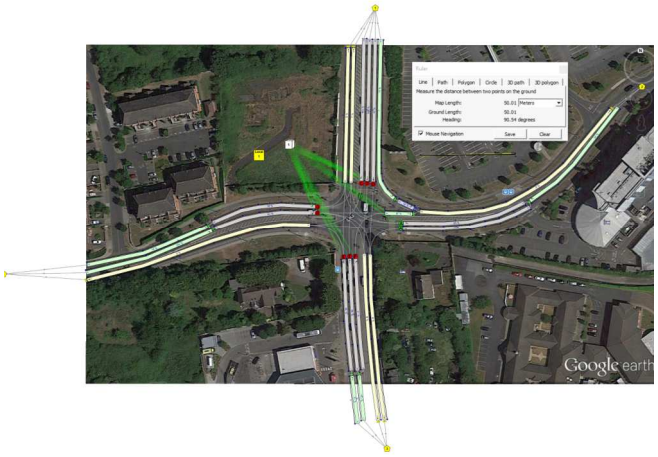
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - J3 - 2039 DS
D2 - PM PEAK*

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 (PCU-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	24/05/2021 16:31:58	24/05/2021 16:31:58	17:15	130	5178.03	358.20	151.38	12/1	5	21	5/1	12/1	12/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2039 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				17:15	

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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1862	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1863	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	67	18.21	✓	1862
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	50	13.71	✓	1863
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	123	28	35	1	7
	2	✓	2	B,G	35	55	20	1	7
	3	✓	3	C,D,G	61	81	20	1	6
	4	✓	4	D,E	87	93	6	1	1
	5	✓	5	E,F	98	118	20	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					160	1630	130	0.00	10	817	9.12	0.12	0.00	0.01	
3	1			1	D	101	2080	32	0.00	19	370	47.92	38.92	76.77	2.92	
4	1			1	D	463 <	2105	32	0.00	109	-17	410.29	398.29	227.54	59.10 +	
5	1			1	C	309 <	1957	21	0.00	110	-18	357.64	348.64	243.89	35.37 +	
6	1			1	G	286	1760	53	0.00	39	130	35.91	28.11	66.23	6.84	
7	1			1	B	296 <	2034	20	0.00	90	0	150.88	143.08	121.47	13.40 +	
8	1					286	2105	130	0.00	14	562	12.13	0.13	0.00	0.01	
9	1					366 <	2105	130	111.73	124	-27	415.35	403.35	285.19	47.60 +	
10	1			1	E	387 <	1862	31	0.00	84	7	83.19	74.79	96.41	13.55 +	
11	1					233	2080	130	8.01	12	654	9.20	0.20	3.16	0.59	
12	1					1079 <	2080	130	85.45	151	-41	650.66	641.66	373.69	209.61 +	
13	1			1	E	434 <	2105	31	0.00	84	7	94.00	85.60	86.48	13.62 +	
14	1			1	F	125	1914	20	1.36	41	119	85.85	76.85	79.35	3.58	
15	1			1	A	381	1863	35	0.00	74	22	62.78	52.58	93.48	12.95	
16	1			1	A	182	1963	35	0.00	33	169	49.48	39.28	78.20	5.14	
17	1					563	1728	130	0.00	33	176	18.50	0.50	0.00	0.08	
18	1					668	Unrestricted	130	2.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					360	Unrestricted	130	2.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					758	Unrestricted	130	22.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					542	Unrestricted	130	55.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					372	Unrestricted	130	27.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					262	2105	130	89.00	12	622	2.52	0.12	0.00	0.01	
24	1					422	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					160	1176	130	0.00	14	562	1.60	0.40	3.91	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	896.96	388.10	2.31	358.20	5086.51	91.52	0.00	5178.03
Bus	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
Pedestrians								
TOTAL	896.96	388.10	2.31	358.20	5086.50	91.52	0.00	5178.03

- *< = 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***

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 2038 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:22:29

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

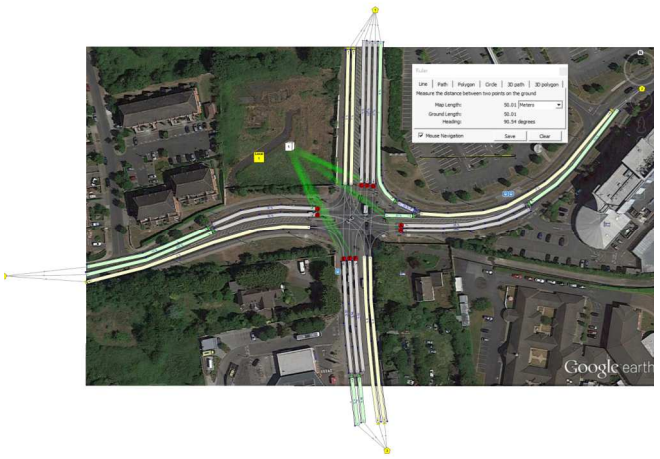
Units

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	PCU	PCU	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



2024 DN
Cyclelime 0s / 130s , Timesteps 129 / 130
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - J3 - 2039 DM
D1 - AM PEAK*

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 (PCU-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	24/05/2021 16:20:19	24/05/2021 16:20:21	08:00	130	3248.91	224.59	131.09	4/1	3	12	4/1	9/1	4/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2039 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM PEAK				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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2033	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1899	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1861	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	54	22.82		2033
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	42	18.21	✓	1899
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	51	13.71	✓	1861
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	0	20	20	1	7
	2	✓	2	B,G	27	67	40	1	7
	3	✓	3	C,D,G	73	87	14	1	6
	4	✓	4	D,E	93	103	10	1	1
	5	✓	5	E,F	108	125	17	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
2	1					125	1630	130	0.00	8	1074	9.09	0.09	0.00	0.00
3	1			1	D	101	2080	30	0.00	20	342	49.63	40.63	78.64	2.93
4	1			1	D	435 <	2105	30	0.00	131	-31	1253.44	1241.44	356.48	157.80 +
5	1			1	C	46	1957	15	0.00	19	371	61.98	52.98	90.39	1.51
6	1			1	G	276	1760	67	0.00	30	200	26.18	18.38	53.00	5.28
7	1			1	B	573 <	2033	40	0.00	89	1	72.33	64.53	64.22	13.48 +
8	1					276	2105	130	0.00	13	586	12.13	0.13	0.00	0.01
9	1					613 <	2105	130	94.62	107	-16	199.45	187.45	192.09	46.02 +
10	1			1	E	264	1899	32	0.00	55	64	54.97	46.57	84.66	8.07
11	1					132	2080	130	0.00	6	1318	9.06	0.06	0.00	0.00
12	1					713	2080	130	15.09	39	132	10.72	1.72	14.91	4.48
13	1			1	E	402 <	2105	32	0.00	75	20	63.47	55.07	87.38	12.71 +
14	1			1	F	179	1914	17	0.66	70	28	77.40	68.40	93.55	6.07
15	1			1	A	296 <	1861	20	0.00	98	-9	187.52	177.32	186.78	20.68 +
16	1			1	A	84	1963	20	0.00	26	240	60.00	49.80	86.95	2.95
17	1					380	1728	130	0.00	22	309	18.29	0.29	0.00	0.03
18	1					582	Unrestricted	130	3.00	0	Unrestricted	12.81	0.00	0.00	0.00
19	1					332	Unrestricted	130	3.00	0	Unrestricted	12.82	0.00	0.00	0.00
20	1					300	Unrestricted	130	37.00	0	Unrestricted	19.44	0.00	0.00	0.00
21	1					588	Unrestricted	130	37.00	0	Unrestricted	15.26	0.00	0.00	0.00
22	1					405	Unrestricted	130	24.00	0	Unrestricted	14.80	0.00	0.00	0.00
23	1					445	2105	130	71.00	21	325	2.63	0.23	0.00	0.03
24	1					570	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00
25	1					125	984	130	0.00	13	609	1.88	0.68	6.18	1.46

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	773.52	250.37	3.09	224.59	3189.19	59.72	0.00	3248.91
Bus	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
Pedestrians								
TOTAL	773.52	250.37	3.09	224.59	3189.19	59.72	0.00	3248.91

- *< = 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 2038 DM.t15
Path: C:\Users\joshua.tai\OneDrive - OCSC\Desktop\M1297\Junction 3
Report generation date: 24/05/2021 16:23:13

File summary

File description

File title	2024 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

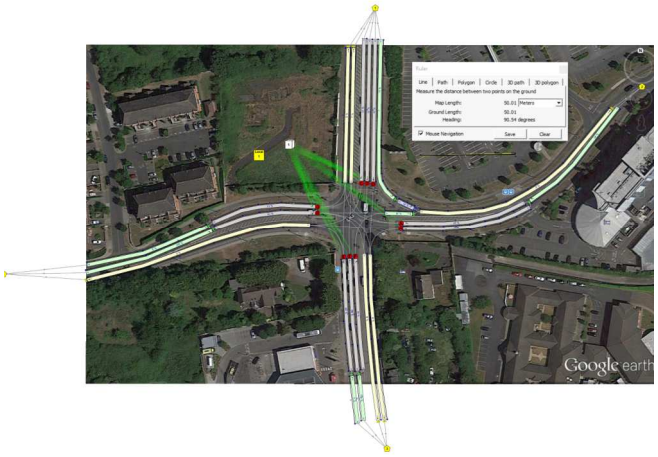
Units

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	PCU	PCU	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



2024 DN
Cyclotime 0s / 130s , Timesteps 129 / 130
2: 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - J3 - 2039 DM
D2 - PM PEAK*

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 (PCU-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	24/05/2021 16:21:28	24/05/2021 16:21:28	17:15	130	3025.12	208.24	125.71	12/1	3	12	4/1	12/1	12/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J3 - 2039 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM PEAK				17:15	

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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
2	1				75.00	✓	Sum of lanes	1630	✓	1800			Normal	
3	1				75.00	✓	Sum of lanes	2080	✓	1800	✓		Normal	
4	1				100.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
5	1				75.00	✓	Sum of lanes	1957	✓	1800	✓		Normal	
6	1				65.00	✓	Sum of lanes	1760	✓	1800	✓		Normal	
7	1				65.00	✓	Sum of lanes	2034	✓	1800	✓		Normal	
8	1				100.00	✓	Sum of lanes	2105					Normal	
9	1				100.00	✓	Sum of lanes	2105					Normal	
10	1				70.00	✓	Sum of lanes	1871	✓	1800	✓		Normal	
11	1				75.00	✓	Sum of lanes	2080					Normal	
12	1				75.00	✓	Sum of lanes	2080					Normal	
13	1				70.00	✓	Sum of lanes	2105	✓	1800	✓		Normal	
14	1				75.00	✓	Sum of lanes	1914	✓	1800	✓		Normal	
15	1				85.00	✓	Sum of lanes	1857	✓	1800	✓		Normal	
16	1				85.00	✓	Sum of lanes	1963	✓	1800	✓		Normal	
17	1				150.00	✓	Sum of lanes	1728	✓	1800			Normal	
18	1			✓	106.78								Normal	
19	1			✓	106.86								Normal	
20	1			✓	162.03								Normal	
21	1			✓	127.15								Normal	
22	1			✓	123.32								Normal	
23	1				20.00	✓	Sum of lanes	2105	✓	1800			Normal	
24	1			✓	125.64								Normal	
25	1				10.00	✓	Sum of lanes	1674	✓	1800		✓	Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	7.88	✓	1630
3	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
4	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
5	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	23.82		1957
6	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	12.89	✓	1760
7	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	22.82		2034
8	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	63.15		2105
9	1	1	(untitled)		✓	N/A	N/A	0	3.50		0	45.58		2105
10	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	61	18.21	✓	1871
11	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
12	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
13	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
14	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	15.06		1914
15	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	53	13.71	✓	1857
16	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	100	20.71		1963
17	1	1	(untitled)		✓	N/A	N/A	0	3.50		100	10.92	✓	1728
18	1	1	(untitled)											
19	1	1	(untitled)											
20	1	1	(untitled)											
21	1	1	(untitled)											
22	1	1	(untitled)											
23	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	0	99999.00		2105
24	1	1	(untitled)											
25	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	9.45	✓	1674

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
3	1	1	D	
4	1	1	D	
5	1	1	C	
6	1	1	G	
7	1	1	B	
10	1	1	E	
13	1	1	E	
14	1	1	F	
15	1	1	A	
16	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
25	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	23/1	100		0	0

Signal Timings

Network Default: 130s cycle time; 130 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	6	7	7
	2	6	0	6	6	5
	3	6	5	0	6	6
	4	6	7	5	0	5
	5	5	7	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	0	27	27	1	7
	2	✓	2	B,G	34	55	21	1	7
	3	✓	3	C,D,G	61	81	20	1	6
	4	✓	4	D,E	87	93	6	1	1
	5	✓	5	E,F	98	125	27	1	7

Final Prediction Table

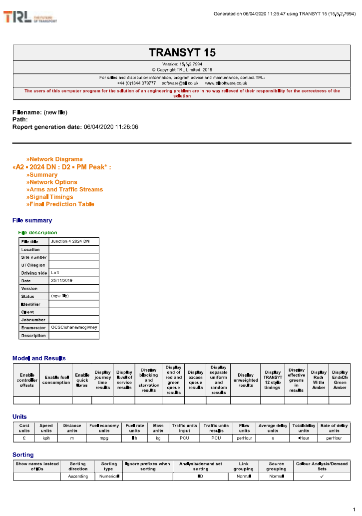
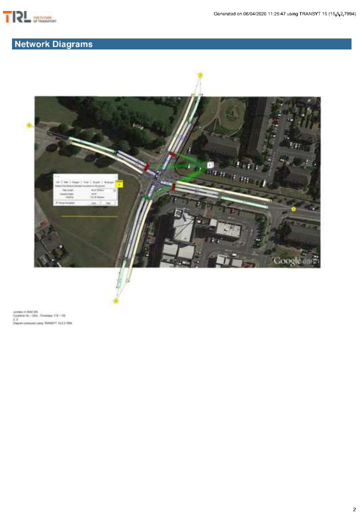
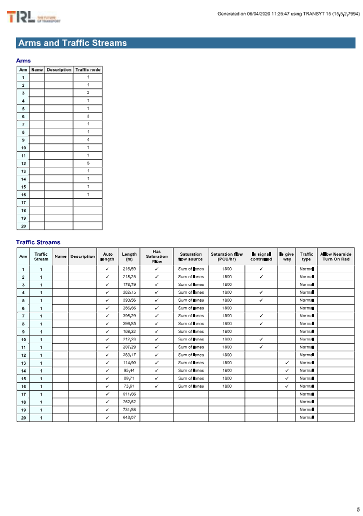
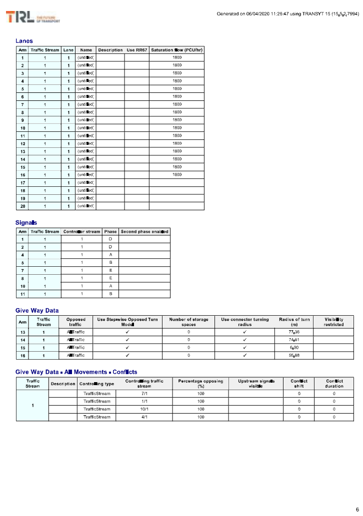
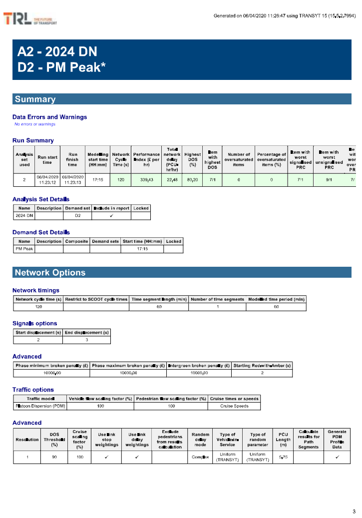
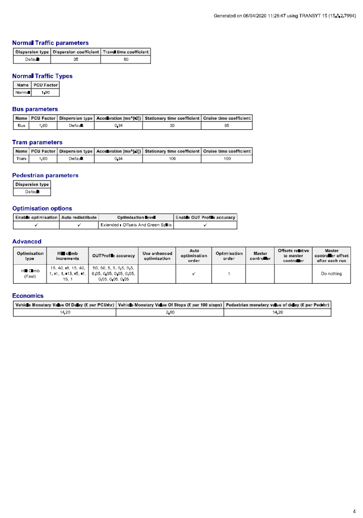
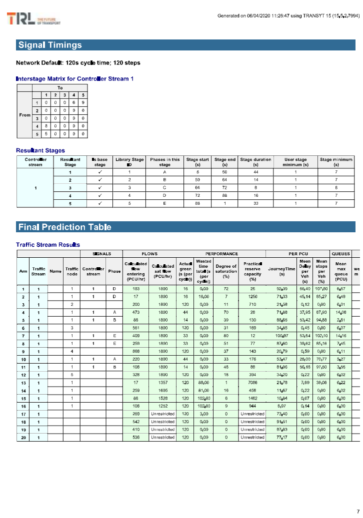
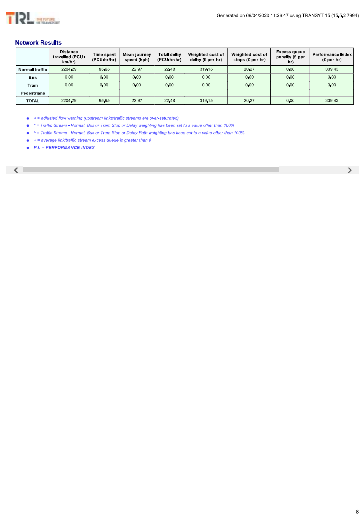
Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	w m
2	1					163	1630	130	0.00	10	800	9.12	0.12	0.00	0.01	
3	1			1	D	101	2080	32	0.00	19	370	47.92	38.92	76.77	2.92	
4	1			1	D	463 <	2105	32	0.00	97	-7	282.99	270.99	144.05	24.75 +	
5	1			1	C	90	1957	21	0.00	27	231	58.09	49.09	86.17	2.95	
6	1			1	G	158	1760	54	0.00	21	324	32.23	24.43	61.27	3.50	
7	1			1	B	310 <	2034	21	0.00	90	0	143.43	135.63	117.19	13.40 +	
8	1					158	2105	130	0.00	8	1099	12.07	0.07	0.00	0.00	
9	1					334 <	2105	130	110.87	108	-17	235.08	223.08	205.64	27.64 +	
10	1			1	E	348	1871	38	0.00	62	45	58.71	50.31	76.67	9.65	
11	1					194	2080	130	0.00	9	865	9.09	0.09	0.00	0.00	
12	1					1007 <	2080	130	79.93	126	-28	414.68	405.68	291.43	133.35 +	
13	1			1	E	505 <	2105	38	0.00	80	13	74.40	66.00	71.84	13.14 +	
14	1			1	F	142	1914	27	2.36	35	159	69.65	60.65	67.36	3.44	
15	1			1	A	305	1857	27	0.00	76	18	72.15	61.95	99.15	10.95	
16	1			1	A	176	1963	27	0.00	42	116	57.37	47.17	85.39	5.43	
17	1					481	1728	130	0.00	28	223	18.40	0.40	0.00	0.05	
18	1					672	Unrestricted	130	4.00	0	Unrestricted	12.81	0.00	0.00	0.00	
19	1					303	Unrestricted	130	4.00	0	Unrestricted	12.82	0.00	0.00	0.00	
20	1					446	Unrestricted	130	22.00	0	Unrestricted	19.44	0.00	0.00	0.00	
21	1					545	Unrestricted	130	54.00	0	Unrestricted	15.26	0.00	0.00	0.00	
22	1					345	Unrestricted	130	34.00	0	Unrestricted	14.80	0.00	0.00	0.00	
23	1					286	2105	130	82.00	14	562	2.53	0.13	0.00	0.01	
24	1					449	Unrestricted	130	0.00	0	Unrestricted	15.08	0.00	0.00	0.00	
25	1					163	1148	130	0.00	14	534	1.61	0.41	3.60	1.46	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	777.96	234.17	3.32	208.24	2956.95	68.17	0.00	3025.12
Bus	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
Pedestrians								
TOTAL	777.96	234.17	3.32	208.24	2956.95	68.17	0.00	3025.12

- *< = 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*

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TRANSYT 15

Version: 15,5,2,7994
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Filename: (new file)
Path:
Report generation date: 01/04/2020 16:57:33

File summary

File description

File title	Junction 4 2039 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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	PCU	PCU	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	✓

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Network Diagrams

Generated on 01/04/2020 17:00:06 using TRANSYT 15 (15,5,2,7994)

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
2			1
3			2
4			1
5			1
6			3
7			1
8			1
9			4
10			1
11			1
12			5
13			1
14			1
15			1
16			1
17			
18			
19			
20			

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
1	1			✓	216,59	✓	Sum of lanes	1800	✓		Normal	
2	1			✓	218,25	✓	Sum of lanes	1800	✓		Normal	
3	1			✓	178,79	✓	Sum of lanes	1800			Normal	
4	1			✓	282,75	✓	Sum of lanes	1800	✓		Normal	
5	1			✓	293,56	✓	Sum of lanes	1800	✓		Normal	
6	1			✓	286,66	✓	Sum of lanes	1800			Normal	
7	1			✓	394,02	✓	Sum of lanes	1800	✓		Normal	
8	1			✓	399,85	✓	Sum of lanes	1800	✓		Normal	
9	1			✓	168,32	✓	Sum of lanes	1800			Normal	
10	1			✓	212,28	✓	Sum of lanes	1800	✓		Normal	
11	1			✓	207,29	✓	Sum of lanes	1800	✓		Normal	
12	1			✓	283,17	✓	Sum of lanes	1800			Normal	
13	1			✓	114,90	✓	Sum of lanes	1800		✓	Normal	
14	1			✓	95,44	✓	Sum of lanes	1800		✓	Normal	
15	1			✓	89,71	✓	Sum of lanes	1800		✓	Normal	
16	1			✓	73,61	✓	Sum of lanes	1800		✓	Normal	
17	1			✓	611,66						Normal	
18	1			✓	762,62						Normal	
19	1			✓	731,88						Normal	
20	1			✓	643,07						Normal	

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Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
1	1	1	(untitled)			1800
2	1	1	(untitled)			1800
3	1	1	(untitled)			1800
4	1	1	(untitled)			1800
5	1	1	(untitled)			1800
6	1	1	(untitled)			1800
7	1	1	(untitled)			1800
8	1	1	(untitled)			1800
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800
13	1	1	(untitled)			1800
14	1	1	(untitled)			1800
15	1	1	(untitled)			1800
16	1	1	(untitled)			1800
17	1	1	(untitled)			
18	1	1	(untitled)			
19	1	1	(untitled)			
20	1	1	(untitled)			

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
1	1	1	D	
2	1	1	D	
4	1	1	A	
5	1	1	B	
7	1	1	E	
8	1	1	E	
10	1	1	A	
11	1	1	B	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
13	1	All Traffic	✓	0	✓	77,36	
14	1	All Traffic	✓	0	✓	74,81	
15	1	All Traffic	✓	0	✓	6,00	
16	1	All Traffic	✓	0	✓	55,88	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	7/1	100		0	0
		TrafficStream	1/1	100		0	0
		TrafficStream	10/1	100		0	0
		TrafficStream	4/1	100		0	0

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A1 - J4 - 2039 DS
D1 - AM Peak*

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 (PCU-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	01/04/2020 16:57:27	01/04/2020 16:57:28	08:00	120	554,30	36,97	91,94	1/1	2	10	1/1	12/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2039 DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5,75		✓

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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 (m/s²)	Stationary time coefficient	Cruise time coefficient
Bus	1,00	Default	0,94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (m/s²)	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	OUT Profile 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, all, 15, 40, all, 1, all, 1, all, all, 15, 1	50, 50, 5, 5, 0,5, 0,5, 0,05, 0,05, 0,05, 0,05		✓				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 hr)
16,20	2,00	14,20

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Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	0	6	9
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	8	0	0	0	0
	5	5	0	0	0	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	16	59	43	1	7
	2	✓	2	B	59	76	17	1	7
	3	✓	3	C	76	84	8	1	8
	4	✓	4	D	84	107	23	1	7
	5	✓	5	E	107	11	24	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	we m
1	1		1	1	D	331	1800	23	0,00	92	-2	116,83	89,84	128,98	14,69	
2	1		1	1	D	12	1800	23	23,00	3	2600	65,16	38,97	79,16	0,32	
3	1		2			343	1800	120	0,00	19	372	21,69	0,24	0,00	0,02	
4	1		1	1	A	511	1800	43	0,00	77	16	76,64	42,71	93,88	16,34	
5	1		1	1	B	67	1800	17	0,00	25	263	82,45	47,23	86,33	2,00	
6	1		3			578	1800	120	0,00	32	180	34,87	0,47	0,00	0,08	
7	1		1	1	E	338	1800	24	0,00	90	0	129,25	81,97	123,21	14,24	
8	1		1	1	E	239	1800	24	0,00	64	41	99,64	51,66	96,51	7,79	
9	1		4			577	1800	120	0,00	32	181	20,67	0,47	0,00	0,08	
10	1		1	1	A	506	1800	43	0,00	77	17	67,69	42,21	93,30	15,99	
11	1		1	1	B	212	1800	17	0,00	79	15	96,73	71,85	112,83	8,11	
12	1		5			718	1800	120	0,00	40	126	34,64	0,66	0,00	0,13	
13	1		1			12	1453	120	90,00	1	10794	16,53	2,74	17,55	0,07	
14	1		1			239	1460	120	89,00	16	450	11,69	0,24	0,00	0,02	
15	1		1			67	1244	120	101,00	5	1571	10,85	0,08	0,00	0,00	
16	1		1			212	1229	120	96,00	17	422	9,14	0,31	0,00	0,02	
17	1					210	Unrestricted	120	0,00	0	Unrestricted	73,40	0,00	0,00	0,00	
18	1					884	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00	
19	1					550	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00	
20	1					572	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00	

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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2764,80	129,13	21,41	36,97	525,01	29,29	0,00	554,30
Bus	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
Pedestrians								
TOTAL	2764,80	129,13	21,41	36,97	525,01	29,29	0,00	554,30

- *< = 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***

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TRANSYT 15

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Filename: (new file)
Path:
Report generation date: 01/04/2020 17:00:21

File summary

File description

File title	Junction 4 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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	PCU	PCU	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	✓

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Network Diagrams

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
2			1
3			2
4			1
5			1
6			3
7			1
8			1
9			4
10			1
11			1
12			5
13			1
14			1
15			1
16			1
17			
18			
19			
20			

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
1	1			✓	216,59	✓	Sum of lanes	1800	✓		Normal	
2	1			✓	218,25	✓	Sum of lanes	1800	✓		Normal	
3	1			✓	178,79	✓	Sum of lanes	1800			Normal	
4	1			✓	282,75	✓	Sum of lanes	1800	✓		Normal	
5	1			✓	293,56	✓	Sum of lanes	1800	✓		Normal	
6	1			✓	286,66	✓	Sum of lanes	1800			Normal	
7	1			✓	394,02	✓	Sum of lanes	1800	✓		Normal	
8	1			✓	399,85	✓	Sum of lanes	1800	✓		Normal	
9	1			✓	168,32	✓	Sum of lanes	1800			Normal	
10	1			✓	212,28	✓	Sum of lanes	1800	✓		Normal	
11	1			✓	207,29	✓	Sum of lanes	1800	✓		Normal	
12	1			✓	283,17	✓	Sum of lanes	1800			Normal	
13	1			✓	114,90	✓	Sum of lanes	1800		✓	Normal	
14	1			✓	95,44	✓	Sum of lanes	1800		✓	Normal	
15	1			✓	89,71	✓	Sum of lanes	1800		✓	Normal	
16	1			✓	73,61	✓	Sum of lanes	1800		✓	Normal	
17	1			✓	611,66						Normal	
18	1			✓	762,62						Normal	
19	1			✓	731,88						Normal	
20	1			✓	643,07						Normal	

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Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
1	1	1	(untitled)			1800
2	1	1	(untitled)			1800
3	1	1	(untitled)			1800
4	1	1	(untitled)			1800
5	1	1	(untitled)			1800
6	1	1	(untitled)			1800
7	1	1	(untitled)			1800
8	1	1	(untitled)			1800
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800
13	1	1	(untitled)			1800
14	1	1	(untitled)			1800
15	1	1	(untitled)			1800
16	1	1	(untitled)			1800
17	1	1	(untitled)			
18	1	1	(untitled)			
19	1	1	(untitled)			
20	1	1	(untitled)			

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
1	1	1	D	
2	1	1	D	
4	1	1	A	
5	1	1	B	
7	1	1	E	
8	1	1	E	
10	1	1	A	
11	1	1	B	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
13	1	All Traffic	✓	0	✓	77,36	
14	1	All Traffic	✓	0	✓	74,81	
15	1	All Traffic	✓	0	✓	6,00	
16	1	All Traffic	✓	0	✓	55,88	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	7/1	100		0	0
		TrafficStream	1/1	100		0	0
		TrafficStream	10/1	100		0	0
		TrafficStream	4/1	100		0	0

Generated on 01/04/2020 17:00:35 using TRANSYT 15 (15,5,2,7994)

A2 - J4 - 2024 DS
D2 - PM Peak*

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 (PCU-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	01/04/2020 16:30:18	01/04/2020 16:30:19	17:15	120	348,56	23,08	80,20	7/1	0	0	7/1	9/1	7/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2024 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM Peak				17:15	

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	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5,75		✓

Generated on 01/04/2020 17:00:35 using TRANSYT 15 (15,5,2,7994)

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 (m/s²)	Stationary time coefficient	Cruise time coefficient
Bus	1,00	Default	0,94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (m/s²)	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	OUT Profile 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, all, 15, 40, all, 1, all, 1, all, all, 15, 1	50, 50, 5, 5, 0,5, 0,5, 0,05, 0,05, 0,05, 0,05		✓				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 hr)
16,20	2,00	14,20

Generated on 01/04/2020 17:00:35 using TRANSYT 15 (15,5,2,7994)

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	0	6	9
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	8	0	0	0	0
	5	5	0	0	0	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	24	68	44	1	7
	2	✓	2	B	68	82	14	1	7
	3	✓	3	C	82	90	8	1	8
	4	✓	4	D	90	106	16	1	7
	5	✓	5	E	106	19	33	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	we m
1	1		1	1	D	187	1800	16	0,00	73	23	93,81	67,82	108,84	6,88	
2	1		1	1	D	17	1800	16	16,00	7	1250	71,33	45,14	85,27	0,49	
3	1		2			204	1800	120	0,00	11	694	21,58	0,13	0,00	0,01	
4	1		1	1	A	482	1800	44	0,00	71	26	72,49	38,58	86,92	14,53	
5	1		1	1	B	90	1800	14	0,00	40	125	88,89	53,67	95,04	2,88	
6	1		3			572	1800	120	0,00	32	183	34,86	0,47	0,00	0,07	
7	1		1	1	E	409	1800	33	0,00	80	12	100,82	53,54	102,10	14,16	
8	1		1	1	E	268	1800	33	0,00	53	71	88,07	40,09	85,64	7,81	
9	1		4			677	1800	120	0,00	38	139	20,80	0,60	0,00	0,11	
10	1		1	1	A	231	1800	44	0,00	34	163	53,75	28,27	71,11	5,61	
11	1		1	1	B	108	1800	14	0,00	48	88	81,06	56,18	97,50	3,55	
12	1		5			339	1800	120	0,00	19	378	34,21	0,23	0,00	0,02	
13	1		1			17	1357	120	88,00	1	7086	21,77	7,99	39,06	0,22	
14	1		1			268	1603	120	81,00	17	438	11,68	0,23	0,00	0,02	
15	1		1			90	1518	120	102,00	6	1418	10,84	0,07	0,00	0,00	
16	1		1			108	1244	120	102,00	9	937	8,97	0,14	0,00	0,00	
17	1					271	Unrestricted	120	3,00	0	Unrestricted	73,40	0,00	0,00	0,00	
18	1					566	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00	
19	1					414	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00	
20	1					541	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00	

Generated on 01/04/2020 17:00:35 using TRANSYT 15 (15,5,2,7994)

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2248,91	98,05	22,94	23,08	327,80	20,76	0,00	348,56
Bus	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
Pedestrians								
TOTAL	2248,91	98,05	22,94	23,08	327,80	20,76	0,00	348,56

- *< = 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***

Generated on 06/04/2020 11:32:46 using TRANSYT 15 (15,5,2,7994)

TRANSYT 15

Version: 15,5,2,7994

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: (new file)
Path:
Report generation date: 06/04/2020 11:32:26

File summary

File description

File title	Junction 4 2024 DM
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
Description	

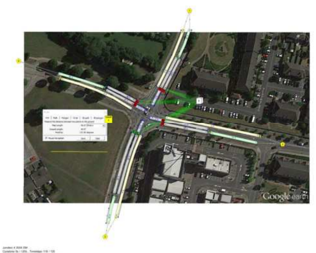
Model and Results

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	✓

1

Network Diagrams



A1 - J4 - 2024 DM
D1 - AM Peak*

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 (PCU-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
1	06/04/2020 11:32:17	06/04/2020 11:32:18	08:00	120	478,45	31,89	85,90	10/1	0	0	10/1	12/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2024 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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 RedwithAmber (s)
10000,00	10000,00	10000,00	2

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	0	6	9
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	8	0	0	0	0
	5	5	0	0	0	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	16	50	34	1	7
	2	✓	2	B	50	64	14	1	7
	3	✓	3	C	64	72	8	1	8
	4	✓	4	D	72	105	33	1	7
	5	✓	5	E	105	11	26	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE					PER PCU		QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1		1	1	D	429	1800	33	0,00	84	7	83,89	57,90	106,17	15,42
2	1		1	1	D	36	1800	33	32,00	7	1175	57,94	31,75	71,74	0,87
3	1		2			465	1800	120	0,00	26	248	21,80	0,35	0,00	0,04
4	1		1	1	A	312	1800	34	0,00	59	51	75,32	41,39	88,01	9,27
5	1		1	1	B	24	1800	14	13,00	11	744	82,82	47,59	86,14	0,71
6	1		3			336	1800	120	0,00	19	382	34,63	0,23	0,00	0,02
7	1		1	1	E	345	1800	26	0,00	85	6	116,05	67,77	112,45	13,24
8	1		1	1	E	171	1800	26	0,00	42	113	91,04	43,08	86,68	5,00
9	1		4			516	1800	120	0,00	29	214	20,60	0,40	0,00	0,06
10	1		1	1	A	451	1800	34	0,00	86	5	84,85	59,38	108,11	16,56
11	1		1	1	B	188	1800	14	0,00	84	8	111,68	86,80	123,78	7,96
12	1		5			639	1800	120	0,00	36	154	34,63	0,55	0,00	0,10
13	1		1			36	1439	120	82,00	3	3498	15,77	1,98	13,25	0,16
14	1		1			171	1344	120	89,00	13	607	11,65	0,20	0,00	0,01
15	1		1			24	1327	120	109,00	2	4875	10,79	0,03	0,00	0,00
16	1		1			188	1439	120	98,00	13	589	9,02	0,19	0,00	0,01
17	1					281	Unrestricted	120	6,00	0	Unrestricted	73,40	0,00	0,00	0,00
18	1					658	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00
19	1					499	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00
20	1					518	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00

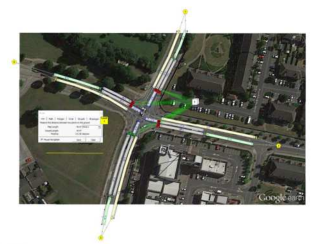
7

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2390,76	111,59	21,43	31,89	452,89	25,56	0,00	478,45
Bus	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
Pedestrians								
TOTAL	2390,76	111,59	21,43	31,89	452,89	25,56	0,00	478,45

- *< = 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***

Network Diagrams



Generated on 06/04/2020 11:34:04 using TRANSYT 15 (15,5,2,7994)

A2 - J4 - 2024 DM
D2 - PM Peak*

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 (PCU-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
2	06/04/2020 11:32:18	06/04/2020 11:32:18	17:15	120	359,36	23,84	80,67	7/1	0	0	7/1	9/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2024 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM Peak				17:15	

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

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	0	6	9
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	8	0	0	0	0
	5	5	0	0	0	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	23	56	33	1	7
	2	✓	2	B	56	64	8	1	7
	3	✓	3	C	64	72	8	1	8
	4	✓	4	D	72	99	27	1	7
	5	✓	5	E	99	18	39	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE					PER PCU		QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1		1	1	D	300	1800	27	0,00	71	26	78,75	52,76	98,94	10,04
2	1		1	1	D	44	1800	27	25,00	10	759	62,88	36,69	77,77	1,16
3	1		2			344	1800	120	0,00	19	371	21,69	0,24	0,00	0,02
4	1		1	1	A	346	1800	33	0,00	68	33	79,41	45,48	93,08	10,89
5	1		1	1	B	23	1800	8	7,00	17	428	90,04	54,81	94,61	0,73
6	1		3			369	1800	120	0,00	21	339	34,66	0,26	0,00	0,03
7	1		1	1	E	484	1800	39	0,00	81	12	95,78	48,49	99,13	16,27
8	1		1	1	E	218	1800	39	0,00	36	148	80,03	32,05	75,50	5,61
9	1		4			702	1800	120	0,00	39	131	20,84	0,64	0,00	0,12
10	1		1	1	A	237	1800	33	0,00	46	94	64,01	38,54	83,31	6,72
11	1		1	1	B	108	1800	8	0,00	80	13	125,45	100,57	131,87	4,92
12	1		5			345	1800	120	0,00	19	370	34,22	0,24	0,00	0,02
13	1		1			44	1270	120	73,00	3	2498	17,28	3,49	15,39	0,23
14	1		1			218	1471	120	76,00	15	507	11,67	0,21	0,00	0,01
15	1		1			23	1531	120	110,00	2	5890	10,78	0,02	0,00	0,00
16	1		1			108	1410	120	103,00	8	1075	8,94	0,11	0,00	0,00
17	1					330	Unrestricted	120	0,00	0	Unrestricted	73,40	0,00	0,00	0,00
18	1					467	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00
19	1					418	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00
20	1					545	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00

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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2163,14	95,84	22,55	23,84	338,48	20,89	0,00	359,36
Bus	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
Pedestrians								
TOTAL	2163,14	95,84	22,55	23,84	338,48	20,89	0,00	359,36

- *< = 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: (new file)
Path:
Report generation date: 06/04/2020 11:36:35

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

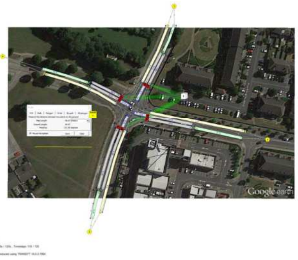
Units

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	PCU	PCU	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



Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
2			1
3			2
4			1
5			1
6			3
7			1
8			1
9			4
10			1
11			1
12			5
13			1
14			1
15			1
16			1
17			
18			
19			
20			

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
1	1			✓	216,59	✓	Sum of lanes	1800	✓		Normal	
2	1			✓	218,25	✓	Sum of lanes	1800	✓		Normal	
3	1			✓	178,79	✓	Sum of lanes	1800			Normal	
4	1			✓	282,75	✓	Sum of lanes	1800	✓		Normal	
5	1			✓	293,56	✓	Sum of lanes	1800	✓		Normal	
6	1			✓	286,66	✓	Sum of lanes	1800			Normal	
7	1			✓	394,02	✓	Sum of lanes	1800	✓		Normal	
8	1			✓	399,85	✓	Sum of lanes	1800	✓		Normal	
9	1			✓	168,32	✓	Sum of lanes	1800			Normal	
10	1			✓	212,28	✓	Sum of lanes	1800	✓		Normal	
11	1			✓	207,29	✓	Sum of lanes	1800	✓		Normal	
12	1			✓	283,17	✓	Sum of lanes	1800			Normal	
13	1			✓	114,90	✓	Sum of lanes	1800		✓	Normal	
14	1			✓	95,44	✓	Sum of lanes	1800		✓	Normal	
15	1			✓	89,71	✓	Sum of lanes	1800		✓	Normal	
16	1			✓	73,61	✓	Sum of lanes	1800		✓	Normal	
17	1			✓	611,66						Normal	
18	1			✓	762,62						Normal	
19	1			✓	731,88						Normal	
20	1			✓	643,07						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
1	1	1	(untitled)			1800
2	1	1	(untitled)			1800
3	1	1	(untitled)			1800
4	1	1	(untitled)			1800
5	1	1	(untitled)			1800
6	1	1	(untitled)			1800
7	1	1	(untitled)			1800
8	1	1	(untitled)			1800
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800
13	1	1	(untitled)			1800
14	1	1	(untitled)			1800
15	1	1	(untitled)			1800
16	1	1	(untitled)			1800
17	1	1	(untitled)			
18	1	1	(untitled)			
19	1	1	(untitled)			
20	1	1	(untitled)			

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
1	1	1	D	
2	1	1	D	
4	1	1	A	
5	1	1	B	
7	1	1	E	
8	1	1	E	
10	1	1	A	
11	1	1	B	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Stepwise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
13	1	All Traffic	✓	0	✓	77,36	
14	1	All Traffic	✓	0	✓	74,81	
15	1	All Traffic	✓	0	✓	6,00	
16	1	All Traffic	✓	0	✓	55,88	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	7/1	100		0	0
		TrafficStream	1/1	100		0	0
		TrafficStream	10/1	100		0	0
		TrafficStream	4/1	100		0	0

A1 - J4 - 2039 DN
D1 - AM Peak*

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 (PCU-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
1	31/03/2020 08:11:08	31/03/2020 08:11:09	08:00	120	540,39	36,04	91,67	1/1	2	10	1/1	12/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2039 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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 RedwithAmber (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	90	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	0,34	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^(-2))	Stationary time coefficient	Cruise time coefficient
Tram	1,00	Default	0,34	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			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

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	0	6	9
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	8	0	0	0	0
	5	5	0	0	0	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	4	47	43	1	7
	2	✓	2	B	47	64	17	1	7
	3	✓	3	C	64	72	8	1	8
	4	✓	4	D	72	95	23	1	7
	5	✓	5	E	95	119	24	1	7

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE					PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1		1	1	D	330	1800	23	0,00	92	-2	114,81	89,82	128,26	14,56
2	1		1	1	D	12	1800	23	23,00	3	2600	65,16	38,97	79,16	0,32
3	1		2			342	1800	120	0,00	19	374	21,69	0,23	0,00	0,02
4	1		1	1	A	486	1800	43	0,00	74	22	74,37	40,44	90,91	15,05
5	1		1	1	B	63	1800	17	0,00	23	286	82,20	46,97	88,19	1,87
6	1		3			549	1800	120	0,00	31	195	34,84	0,44	0,00	0,07
7	1		1	1	E	338	1800	24	0,00	90	0	129,25	81,97	123,21	14,24
8	1		1	1	E	236	1800	24	0,00	63	43	99,28	51,30	96,20	7,67
9	1		4			574	1800	120	0,00	32	182	20,67	0,47	0,00	0,07
10	1		1	1	A	503	1800	43	0,00	76	18	67,40	41,93	93,01	15,86
11	1		1	1	B	212	1800	17	0,00	79	15	96,73	71,85	112,83	8,11
12	1		5			715	1800	120	0,00	40	127	34,64	0,66	0,00	0,13
13	1		1			12	1453	120	90,00	1	10794	16,53	2,74	17,55	0,07
14	1		1			236	1460	120	89,00	16	457	11,69	0,24	0,00	0,02
15	1		1			63	1246	120	101,00	5	1680	10,84	0,08	0,00	0,00
16	1		1			212	1248	120	96,00	17	430	9,13	0,30	0,00	0,02
17	1					206	Unrestricted	120	0,00	0	Unrestricted	73,40	0,00	0,00	0,00
18	1					877	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00
19	1					539	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00
20	1					558	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2719,18	126,68	21,47	36,04	511,77	28,62	0,00	540,39
Bus	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
Pedestrians								
TOTAL	2719,18	126,68	21,47	36,04	511,77	28,62	0,00	540,39

- *< = 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***

TRANSYT 15

Version: 15,5,2,7994
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: (new file)
Path:
Report generation date: 06/04/2020 11:38:25

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
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

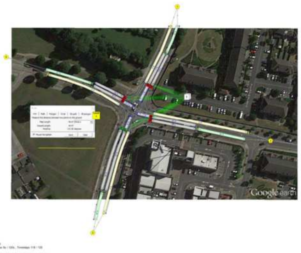
Units

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	PCU	PCU	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



Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
2			1
3			2
4			1
5			1
6			3
7			1
8			1
9			4
10			1
11			1
12			5
13			1
14			1
15			1
16			1
17			
18			
19			
20			

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
1	1			✓	216,59	✓	Sum of lanes	1800	✓		Normal	
2	1			✓	218,25	✓	Sum of lanes	1800	✓		Normal	
3	1			✓	178,79	✓	Sum of lanes	1800			Normal	
4	1			✓	282,75	✓	Sum of lanes	1800	✓		Normal	
5	1			✓	293,56	✓	Sum of lanes	1800	✓		Normal	
6	1			✓	286,66	✓	Sum of lanes	1800			Normal	
7	1			✓	394,02	✓	Sum of lanes	1800	✓		Normal	
8	1			✓	399,85	✓	Sum of lanes	1800	✓		Normal	
9	1			✓	168,32	✓	Sum of lanes	1800			Normal	
10	1			✓	212,28	✓	Sum of lanes	1800	✓		Normal	
11	1			✓	207,29	✓	Sum of lanes	1800	✓		Normal	
12	1			✓	283,17	✓	Sum of lanes	1800			Normal	
13	1			✓	114,90	✓	Sum of lanes	1800		✓	Normal	
14	1			✓	95,44	✓	Sum of lanes	1800		✓	Normal	
15	1			✓	89,71	✓	Sum of lanes	1800		✓	Normal	
16	1			✓	73,61	✓	Sum of lanes	1800		✓	Normal	
17	1			✓	611,66						Normal	
18	1			✓	762,62						Normal	
19	1			✓	731,88						Normal	
20	1			✓	643,07						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
1	1	1	(untitled)			1800
2	1	1	(untitled)			1800
3	1	1	(untitled)			1800
4	1	1	(untitled)			1800
5	1	1	(untitled)			1800
6	1	1	(untitled)			1800
7	1	1	(untitled)			1800
8	1	1	(untitled)			1800
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800
13	1	1	(untitled)			1800
14	1	1	(untitled)			1800
15	1	1	(untitled)			1800
16	1	1	(untitled)			1800
17	1	1	(untitled)			
18	1	1	(untitled)			
19	1	1	(untitled)			
20	1	1	(untitled)			

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
1	1	1	D	
2	1	1	D	
4	1	1	A	
5	1	1	B	
7	1	1	E	
8	1	1	E	
10	1	1	A	
11	1	1	B	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Stepwise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
13	1	All Traffic	✓	0	✓	77,36	
14	1	All Traffic	✓	0	✓	74,81	
15	1	All Traffic	✓	0	✓	6,00	
16	1	All Traffic	✓	0	✓	55,88	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	7/1	100		0	0
		TrafficStream	1/1	100		0	0
		TrafficStream	10/1	100		0	0
		TrafficStream	4/1	100		0	0

A2 - J4 - 2039 DN
D2 - PM Peak*

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 (PCU-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
2	31/03/2020 08:11:09	31/03/2020 08:11:10	08:00	120	437,18	29,06	90,00	7/1	0	0	7/1	9/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2039 DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM Peak				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 RedwithAmber (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	90	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	0,34	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^(-2))	Stationary time coefficient	Cruise time coefficient
Tram	1,00	Default	0,34	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			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

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	0	6	9
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	8	0	0	0	0
	5	5	0	0	0	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	6	50	44	1	7
	2	✓	2	B	50	64	14	1	7
	3	✓	3	C	64	72	8	1	8
	4	✓	4	D	72	88	16	1	7
	5	✓	5	E	88	1	33	1	7

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE					PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)
1	1		1	1	D	207	1800	16	0,00	81	11	103,62	77,63	117,31	8,26
2	1		1	1	D	19	1800	16	15,00	7	1108	71,47	45,28	86,15	0,55
3	1		2			226	1800	120	0,00	13	617	21,60	0,14	0,00	0,01
4	1		1	1	A	533	1800	44	0,00	79	14	76,93	43,00	94,79	17,13
5	1		1	1	B	101	1800	14	0,00	45	100	90,36	55,13	96,72	3,30
6	1		3			634	1800	120	0,00	35	156	34,94	0,54	0,00	0,10
7	1		1	1	E	459	1800	33	0,00	90	0	115,78	68,50	115,78	18,12
8	1		1	1	E	291	1800	33	0,00	57	58	89,40	41,41	87,69	8,62
9	1		4			750	1800	120	0,00	42	116	20,91	0,71	0,00	0,15
10	1		1	1	A	249	1800	44	0,00	37	144	54,23	28,76	72,06	6,13
11	1		1	1	B	123	1800	14	0,00	55	65	83,68	58,80	100,10	4,15
12	1		5			372	1800	120	0,00	21	335	34,24	0,26	0,00	0,03
13	1		1			19	1321	120	84,00	1	6156	23,61	9,82	39,87	0,25
14	1		1			291	1582	120	81,00	18	389	11,71	0,26	0,00	0,02
15	1		1			101	1498	120	101,00	7	1235	10,85	0,09	0,00	0,00
16	1		1			123	1207	120	101,00	10	783	9,00	0,17	0,00	0,01
17	1					304	Unrestricted	120	0,00	0	Unrestricted	73,40	0,00	0,00	0,00
18	1					612	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00
19	1					465	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00
20	1					801	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2486,18	111,93	22,21	29,06	412,61	24,56	0,00	437,18
Bus	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
Pedestrians								
TOTAL	2486,18	111,93	22,21	29,06	412,62	24,56	0,00	437,18

- *< = 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

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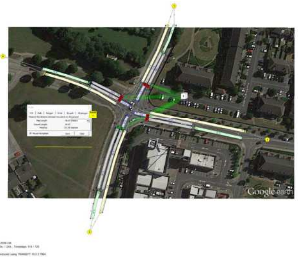
Filename: (new file)
Path:
Report generation date: 01/04/2020 16:57:33

File summary

File description

File title	Junction 4 2039 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
Description	

Network Diagrams



A1 - J4 - 2039 DS
D1 - AM Peak*

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 (PCU-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
1	01/04/2020 16:57:27	01/04/2020 16:57:28	08:00	120	554,30	36,97	91,94	1/1	2	10	1/1	12/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2039 DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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

Signal Timings

Network Default: 120s cycle time; 120 steps

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	16	59	43	1	7
	2	✓	2	B	59	76	17	1	7
	3	✓	3	C	76	84	8	1	8
	4	✓	4	D	84	107	23	1	7
	5	✓	5	E	107	11	24	1	7

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	Controller stream (SIGNALS)	Phase	Calculated flow entering (PCU/hr) (FLOWS)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle)) (PERFORMANCE)	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s) (PER PCU)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU) (QUEUES)
1	1		1	1	D	331	1800	23	0,00	92	-2	115,83	89,84	128,98	14,69
2	1		1	1	D	12	1800	23	23,00	3	2600	65,16	38,97	79,16	0,32
3	1		2			343	1800	120	0,00	19	372	21,69	0,24	0,00	0,02
4	1		1	1	A	511	1800	43	0,00	77	16	76,64	42,71	93,88	16,34
5	1		1	1	B	67	1800	17	0,00	25	263	82,45	47,23	86,33	2,00
6	1		3			578	1800	120	0,00	32	180	34,87	0,47	0,00	0,08
7	1		1	1	E	338	1800	24	0,00	90	0	129,25	81,97	123,21	14,24
8	1		1	1	E	239	1800	24	0,00	64	41	98,64	51,66	96,51	7,79
9	1		4			577	1800	120	0,00	32	181	20,67	0,47	0,00	0,08
10	1		1	1	A	506	1800	43	0,00	77	17	67,69	42,21	93,30	15,99
11	1		1	1	B	212	1800	17	0,00	79	15	96,73	71,85	112,83	8,11
12	1		5			718	1800	120	0,00	40	126	34,64	0,66	0,00	0,13
13	1		1			12	1453	120	90,00	1	10794	16,53	2,74	17,55	0,07
14	1		1			239	1460	120	89,00	16	450	11,69	0,24	0,00	0,02
15	1		1			67	1244	120	101,00	5	1571	10,85	0,08	0,00	0,00
16	1		1			212	1229	120	96,00	17	422	9,14	0,31	0,00	0,02
17	1					210	Unrestricted	120	0,00	0	Unrestricted	73,40	0,00	0,00	0,00
18	1					884	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00
19	1					550	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00
20	1					572	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2764,80	129,13	21,41	36,97	525,01	29,29	0,00	554,30
Bus	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
Pedestrians								
TOTAL	2764,80	129,13	21,41	36,97	525,01	29,29	0,00	554,30

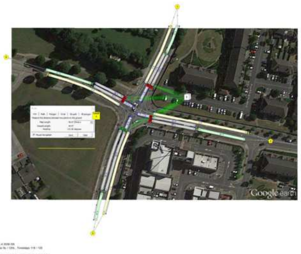
- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
-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

TRANSYT 15

Version: 15,5,2,7994

Filename: (new file)
Path:
Report generation date: 01/04/2020 16:43:31

Network Diagrams



A2 - J4 - 2039 DS
D2 - PM Peak*

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 (PCU-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
2	01/04/2020 16:39:00	01/04/2020 16:39:01	17:15	120	449,12	29,86	90,00	7/1	0	0	7/1	9/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J4 - 2039 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM Peak				17:15	

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

Signal Timings

Network Default: 120s cycle time; 120 steps

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	24	68	44	1	7
	2	✓	2	B	68	82	14	1	7
	3	✓	3	C	82	90	8	1	8
	4	✓	4	D	90	106	16	1	7
	5	✓	5	E	106	19	33	1	7

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	Controller stream (SIGNALS)	Phase	Calculated flow entering (PCU/hr) (FLOWS)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle)) (PERFORMANCE)	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s) (PER PCU)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU) (QUEUES)
1	1		1	1	D	211	1800	16	0,00	83	9	106,35	80,36	119,33	8,57
2	1		1	1	D	19	1800	16	15,00	7	1108	71,47	45,28	86,15	0,55
3	1		2			230	1800	120	0,00	13	604	21,60	0,15	0,00	0,01
4	1		1	1	A	542	1800	44	0,00	80	12	77,96	44,03	96,02	17,89
5	1		1	1	B	102	1800	14	0,00	45	99	90,61	55,28	96,86	3,33
6	1		3			644	1800	120	0,00	36	152	34,96	0,56	0,00	0,10
7	1		1	1	E	459	1800	33	0,00	90	0	115,78	68,50	115,78	18,12
8	1		1	1	E	300	1800	33	0,00	59	53	89,96	41,98	86,56	9,00
9	1		4			759	1800	120	0,00	42	113	20,93	0,73	0,00	0,15
10	1		1	1	A	260	1800	44	0,00	39	134	54,54	29,07	72,79	6,40
11	1		1	1	B	123	1800	14	0,00	55	65	83,68	58,80	100,10	4,15
12	1		5			383	1800	120	0,00	21	323	34,25	0,27	0,00	0,03
13	1		1			19	1321	120	84,00	1	6156	23,61	9,82	39,87	0,25
14	1		1			300	1580	120	80,00	19	374	11,72	0,27	0,00	0,02
15	1		1			102	1484	120	101,00	7	1209	10,85	0,09	0,00	0,00
16	1		1			123	1200	120	101,00	10	778	9,00	0,17	0,00	0,01
17	1					305	Unrestricted	120	0,00	0	Unrestricted	73,40	0,00	0,00	0,00
18	1					636	Unrestricted	120	0,00	0	Unrestricted	91,51	0,00	0,00	0,00
19	1					466	Unrestricted	120	0,00	0	Unrestricted	87,83	0,00	0,00	0,00
20	1					607	Unrestricted	120	0,00	0	Unrestricted	77,17	0,00	0,00	0,00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	2529,95	114,19	22,16	29,86	423,98	25,13	0,00	449,12
Bus	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
Pedestrians								
TOTAL	2529,95	114,19	22,16	29,86	423,98	25,13	0,00	449,12

- < = 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

TRANSYT 15

Filename: (new file)
Path:
Report generation date: 06/04/2020 11:41:02

- Network Diagrams
- A1 - J4 - 2039 DM : D1 - AM Peak* :
  - Summary
  - Network Options
  - Arms and Traffic Streams
  - Signal Timings
  - Final Prediction Table

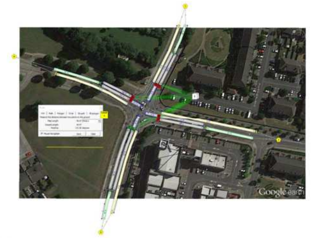
File summary

Model and Results

Units

Sorting

Network Diagrams



Arms and Traffic Streams

Arms

Traffic Streams

Lanes

Signals

Give Way Data

Give Way Data - All Movements - Conflicts

A1 - J4 - 2039 DM
D1 - AM Peak*

Summary

Data Errors and Warnings

Run Summary

Analysis Set Details

Demand Set Details

Network Options

Network timings

Signals options

Advanced

Traffic options

Advanced

Normal Traffic parameters

Normal Traffic Types

Bus parameters

Tram parameters

Pedestrian parameters

Optimisation options

Advanced

Economics

Signal Timings

Network Default: 120s cycle time; 120 steps

Intergreen Matrix for Controller Stream 1

Resultant Stages

Final Prediction Table

Traffic Stream Results

[illegible]

Network Results

[illegible]

TRANSYT 15

Filename: (new file)
Path:
Report generation date: 06/04/2020 11:41:52

- Network Diagrams
- A2 - J4 - 2039 DM : D2 - PM Peak* :
  - Summary
  - Network Options
  - Arms and Traffic Streams
  - Signal Timings
  - Final Prediction Table

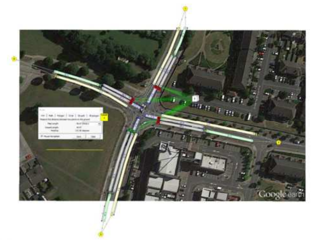
File summary

Model and Results

Units

Sorting

Network Diagrams



Arms and Traffic Streams

Arms

Traffic Streams

Lanes

Signals

Give Way Data

Give Way Data - All Movements - Conflicts

A2 - J4 - 2039 DM
D2 - PM Peak*

Summary

Data Errors and Warnings

Run Summary

Analysis Set Details

Demand Set Details

Network Options

Network timings

Signals options

Advanced

Traffic options

Advanced

Normal Traffic parameters

Normal Traffic Types

Bus parameters

Tram parameters

Pedestrian parameters

Optimisation options

Advanced

Economics

Signal Timings

Network Default: 120s cycle time; 120 steps

Intergreen Matrix for Controller Stream 1

Resultant Stages

Final Prediction Table

Traffic Stream Results

[illegible]

Network Results

[illegible]

Generated on 31/03/2020 11:23:03 using Junctions 9 (9,5,1,7462)

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9,5,1,7462
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Filename: Junction 5 2024 DN.j9
Path: C:\Users\joshua.tai\Desktop\Fostertown - O617\Junction 5 - updated
Report generation date: 31/03/2020 11:22:33

«2024 Junction 5 DN - 2024, PM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Junction 5 DN - 2024									
Stream B-C	D1	0,0	7,63	0,03	A	D2	0,0	6,99	0,02	A
Stream B-A		0,1	11,30	0,04	B		0,0	11,99	0,01	B
Stream C-AB		0,0	5,35	0,03	A		0,1	5,84	0,03	A

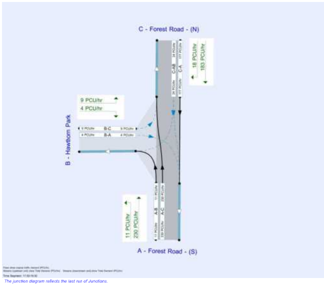
Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	31/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	[illegible]
Description	

Units



Analysis Options

Analysis Set Details

Demand Set Details

Junctions 9

PICADY 9 - Priority Intersection Module

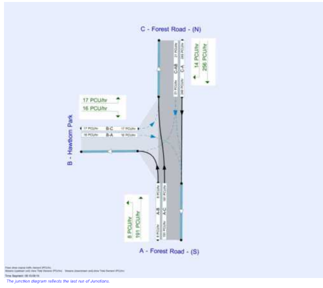
Filename: Junction 5 2024 DS.j9
Report generation date: 01/04/2020 17:18:11

«Junction 5 DS - 2024, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

File summary

Units



Analysis Options

Analysis Set Details

Demand Set Details

2024 Junction 5 DN - 2024, PM

Data Errors and Warnings

Junction Network

Arms

Traffic Demand

Demand overview (Traffic)

Origin-Destination Data

Vehicle Mix

Results

Results Summary for whole modelled period

Main Results for each time segment

Junction 5 DS - 2024, AM

Data Errors and Warnings

Junction Network

Arms

Traffic Demand

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2,00	✓

Demand overview (Traffic)

Origin-Destination Data

Vehicle Mix

Results

Results Summary for whole modelled period

Main Results for each time segment

Junctions 9

PICADY 9 - Priority Intersection Module

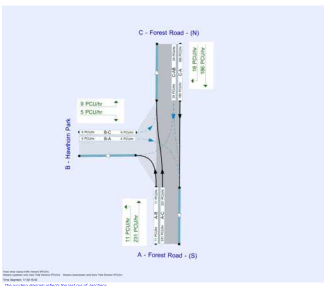
Filename: Junction 5 2024 DS.j9
Report generation date: 01/04/2020 17:18:43

«Junction 5 DS - 2024, PM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

File summary

Units



Analysis Options

Analysis Set Details

Demand Set Details

Generated on 31/03/2020 11:21:14 using TRANSYT 15 (15,5,2,7994)

TRANSYT 15

Version: 15,5,2,7994
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Filename: (new file)
Path:
Report generation date: 31/03/2020 11:20:01

»Network Diagrams
«A1 - J5 2024 DS : D1 - AM* :
»Summary
»Network Options
»Arms and Traffic Streams
»Signal Timings
»Final Prediction Table

File summary

File description

File title	Junction 5 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	05/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\shane.mcgivney
Description	

Modelling and Results

Units

Sorting

Network Diagrams

Junction 5 DS - 2024, PM

Data Errors and Warnings

Junction Network

Arms

Traffic Demand

Demand overview (Traffic)

Origin-Destination Data

Vehicle Mix

Results

Results Summary for whole modelled period

Main Results for each time segment

A1 - J5 2024 DS D1 - AM*

Summary

Data Errors and Warnings

Run Summary

Analysis Set Details

Demand Set Details

Network Options

Network timings

Signals options

Advanced

Traffic options

Advanced

Normal Traffic parameters

Normal Traffic Types

Bus parameters

Tram parameters

Pedestrian parameters

Optimisation options

Advanced

Economics

Arms and Traffic Streams

Arms

Traffic Streams

Lanes

Signals

Give Way Data

Give Way Data - All Movements - Conflicts

Signal Timings

Network Default: 100s cycle time; 100 steps

Intersage Matrix for Controller Stream 1

Resultant Stages

Final Prediction Table

Traffic Stream Results

Network Results

A2 - J5 - 2024 DM D2 - PM*

Summary

Data Errors and Warnings

Run Summary

Analysis Set Details

Demand Set Details

Network Options

Network timings

Signals options

Advanced

Traffic options

Advanced

Normal Traffic parameters

Normal Traffic Types

Bus parameters

Tram parameters

Pedestrian parameters

Optimisation options

Advanced

Economics

Arms and Traffic Streams

Arms

TRANSYT 15

Report generation date: 31/03/2020 11:21:28

File summary

Model and Results

Units

Sorting

Network Diagrams

Traffic Streams

Lanes

Signals

Give Way Data

Give Way Data - All Movements - Conflicts

Signal Timings

Network Default: 100s cycle time; 100 steps

Intersage Matrix for Controller Stream 1

Resultant Stages

Final Prediction Table

Traffic Stream Results

Network Results

Junctions 9

PICADY 9 - Priority Intersection Module

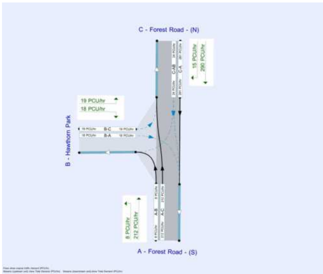
Filename: Junction 5 2039 DN.j9

Report generation date: 31/03/2020 11:45:48

Summary of junction performance

File summary

Units



Analysis Options

Analysis Set Details

Demand Set Details

Junctions 9

PICADY 9 - Priority Intersection Module

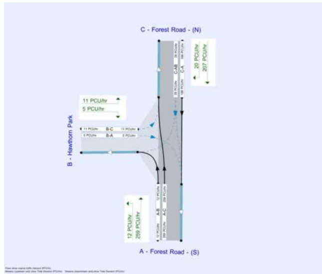
Filename: Junction 5 2039 DN.j9

Report generation date: 31/03/2020 11:45:07

Summary of junction performance

File summary

Units



Analysis Options

Analysis Set Details

Demand Set Details

2039 Junction 5 - 2039, AM

Data Errors and Warnings

Junction Network

Junctions

Junction Network Options

Arms

Arms

Major Arm Geometry

Minor Arm Geometry

Slope / Intercept / Capacity

Traffic Demand

Demand overview (Traffic)

Origin-Destination Data

Vehicle Mix

Results

Results Summary for whole modelled period

Main Results for each time segment

2039 Junction 5 - 2039, PM

Data Errors and Warnings

Junction Network

Junctions

Junction Network Options

Arms

Arms

Major Arm Geometry

Minor Arm Geometry

Slope / Intercept / Capacity

Traffic Demand

Demand overview (Traffic)

Origin-Destination Data

Vehicle Mix

Results

Results Summary for whole modelled period

Main Results for each time segment

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Junction 5 2039 DS.j9
Path: C:\Users\joshua.tai\Desktop\Cremona - M1297\Junction 5 - UPDATED
Report generation date: 01/04/2020 17:17:22

«Junction 5 DS - 2039, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

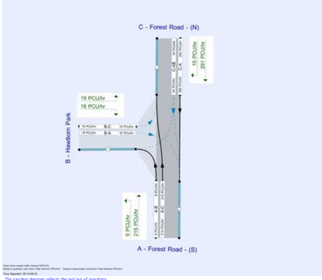
	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 5 DS - 2039							
Stream B-C	0.0	7.77	0.04	A	0.0	7.27	0.02	A
Stream B-A	0.1	11.71	0.05	B	0.0	12.13	0.02	B
Stream C-AB	0.0	5.24	0.03	A	0.1	5.78	0.04	A

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	
Location	
Site number	
Date	31/10/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai



Junctions 9

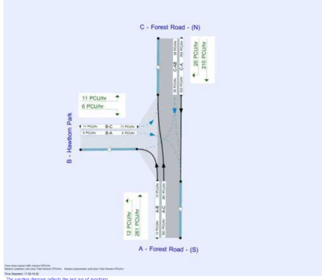
PICADY 9 - Priority Intersection Module

Filename: Junction 5 2039 DS.j9
Path: C:\Users\joshua.tai\Desktop\Cremona - M1297\Junction 5 - UPDATED
Report generation date: 01/04/2020 17:16:35

«Junction 5 DS - 2039, PM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 5 DS - 2039							
Stream B-C	0.0	7.77	0.04	A	0.0	7.27	0.02	A
Stream B-A	0.1	11.71	0.05	B	0.0	12.13	0.02	B
Stream C-AB	0.0	5.24	0.03	A	0.1	5.78	0.04	A



Junction 5 DS - 2039, AM

Junction Network

Arms

Traffic Demand

Origin-Destination Data

08:15 - 09:15

		A - Forest Road - (S)	B - Hawthorn Park	C - Forest Road - (N)
From	A - Forest Road - (S)	0	9	215
	B - Hawthorn Park	18	0	19
	C - Forest Road - (N)	281	15	0

Vehicle Mix

Heavy Vehicle Percentages

		A - Forest Road - (S)	B - Hawthorn Park	C - Forest Road - (N)
From	A - Forest Road - (S)	10	10	10
	B - Hawthorn Park	10	10	10
	C - Forest Road - (N)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	7.77	0.0	A	19	19
B-A	0.05	11.71	0.1	B	18	18
C-AB	0.03	5.24	0.0	A	24	24
C-A					282	282
A-B					9	9
A-C					215	215

Main Results for each time segment

08:15 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	19	529	0.036	19	0.0	0.0	7.770	A
B-A	18	18	356	0.051	18	0.0	0.1	11.710	B
C-AB	24	24	779	0.031	24	0.0	0.0	5.242	A
C-A	282	282			282				
A-B	9	9			9				
A-C	215	215			215				

Junction 5 DS - 2039, PM

Junction Network

Arms

Traffic Demand

Origin-Destination Data

17:30 - 18:30

		A - Forest Road - (S)	B - Hawthorn Park	C - Forest Road - (N)
From	A - Forest Road - (S)	0	12	261
	B - Hawthorn Park	6	0	11
	C - Forest Road - (N)	210	20	0

Vehicle Mix

Heavy Vehicle Percentages

		A - Forest Road - (S)	B - Hawthorn Park	C - Forest Road - (N)
From	A - Forest Road - (S)	10	10	10
	B - Hawthorn Park	10	10	10
	C - Forest Road - (N)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	7.27	0.0	A	11	11
B-A	0.02	12.13	0.0	B	6	6
C-AB	0.04	5.78	0.1	A	28	28
C-A					202	202
A-B					12	12
A-C					261	261

Main Results for each time segment

17:30 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	11	556	0.020	11	0.0	0.0	7.271	A
B-A	6	6	333	0.018	6	0.0	0.0	12.127	B
C-AB	28	28	714	0.040	28	0.0	0.1	5.777	A
C-A	202	202			202				
A-B	12	12			12				
A-C	261	261			261				

TRANSYT 15

Report generation date: 31/03/2020 11:43:06

Network Diagrams

Signal Timings

Final Prediction Table

A1 - J5 - 2039 DM D1 - AM*

Summary

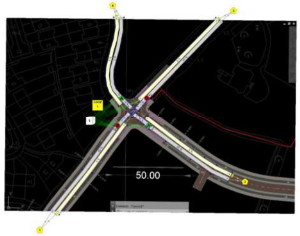
Network Options

Arms and Traffic Streams

TRANSYT 15

Report generation date: 31/03/2020 11:38:36

Network Diagrams



A2 - J5 - 2039 DM
D2 - PM*

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 (PCU-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	Item with worst over PR
2	31/03/2020 11:37:17	31/03/2020 11:37:18	08:00	100	139,09	8,91	62,00	2/1	0	0	2/1	3/1	2/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J5 - 2039 DM		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				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)
100		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	90	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	0,34	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1,00	Default	0,34	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			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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
2			1
3			1
4			1
5			1
6			1
7			1
8			1
9			1
10			
11			
12			
13			

TRANSYT 15

Version: 15,5,2,7994

Filename: (new file)
Path:
Report generation date: 31/03/2020 12:11:15

File summary

File description

File title	Junction 6 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

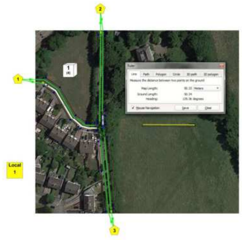
Units

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	PCU	PCU	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



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
2	1				100,00	✓	Sum of lanes	1812	✓		Normal	
3	1				10,00	✓	Sum of lanes	1644		✓	Normal	
4	1				50,00	✓	Sum of lanes	1640	✓		Normal	
5	1				10,00	✓	Sum of lanes	1644		✓	Normal	
6	1				100,00	✓	Sum of lanes	1815	✓		Normal	
7	1				10,00	✓	Sum of lanes	1644		✓	Normal	
8	1				50,00	✓	Sum of lanes	1639	✓		Normal	
9	1				10,00	✓	Sum of lanes	1644		✓	Normal	
10	1			✓	99,74						Normal	
11	1			✓	91,56						Normal	
12	1			✓	97,66						Normal	
13	1			✓	85,35						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
2	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	45	11,88	✓	1812
3	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	6,00		1644
4	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	8,94	✓	1640
5	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	6,00		1644
6	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	30	8,16	✓	1815
7	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	6,00		1644
8	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	88	7,84	✓	1639
9	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	6,00		1644
10	1	1	(untitled)											
11	1	1	(untitled)											
12	1	1	(untitled)											
13	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
2	1	1	B	
4	1	1	A	
6	1	1	B	
8	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Stepwise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
(ALL)	1	All Traffic	✓	0	✓	6,00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	6/1	100		0	0
		TrafficStream	8/1	100		0	0
		TrafficStream	2/1	100		0	0
		TrafficStream	4/1	100		0	0

Signal Timings

Network Default: 100s cycle time; 100 steps

Interstage Matrix for Controller Stream 1

From \ To	1	2	3
1	0	6	0
2	6	0	0
3	0	0	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	80	21	41	1	7
	2	✓	2	B	27	60	33	1	7
	3	✓	3	C	60	80	20	1	20

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS: Controller stream	SIGNALS: Phase	FLOWS: Calculated flow entering (PCU/hr)	FLOWS: Calculated sat flow (PCU/hr)	PERFORMANCE: Actual green (s (per cycle))	PERFORMANCE: Wasted time total (s (per cycle))	PERFORMANCE: Degree of saturation (%)	PERFORMANCE: Practical reserve capacity (%)	PER PCU: JourneyTime (s)	PER PCU: Mean Delay per Veh (s)	PER PCU: Mean stops per Veh (%)	QUEUES: Mean max queue (PCU)
2	1		1	1	B	333	1812	33	4,38	62	45	45,53	33,53	89,58	8,46
3	1		1			142	1333	100	66,00	11	745	7,39	6,19	79,57	2,00
4	1		1	1	A	425 <	1640	41	0,00	62	46	32,88	26,88	80,23	9,70 +
5	1		1			148	1554	100	58,00	10	845	1,32	0,12	0,00	0,01
6	1		1	1	B	289	1815	33	0,00	47	92	40,47	28,47	79,13	6,47
7	1		1			13	1291	100	81,00	1	8839	3,59	2,39	46,90	0,17
8	1		1	1	A	16	1639	41	41,00	2	3772	23,17	17,17	56,88	0,26
9	1		1			5	1139	100	80,00	0	20397	13,87	12,67	75,49	0,11
10	1					474	Unrestricted	100	15,00	0	Unrestricted	11,97	0,00	0,00	0,00
11	1					217	Unrestricted	100	60,00	0	Unrestricted	10,99	0,00	0,00	0,00
12	1					339	Unrestricted	100	16,00	0	Unrestricted	11,72	0,00	0,00	0,00
13	1					33	Unrestricted	100	87,00	0	Unrestricted	10,24	0,00	0,00	0,00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	190,40	15,26	12,48	8,91	126,55	12,54	0,00	139,09
Bus	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
Pedestrians								
TOTAL	190,40	15,26	12,48	8,91	126,55	12,54	0,00	139,09

- < = 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

A1 - J6 - 2024 DM
D1 - AM Peak*

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 (PCU-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	Item with worst over PR
1	31/03/2020 12:11:10	31/03/2020 12:11:10	08:00	94	241,87	15,75	84,69	3/1	0	0	3/1	4/1	3/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 - 2024 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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)
94		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	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5,75		✓

Normal Traffic parameters

Normal Traffic Types

Bus parameters

Tram parameters

Pedestrian parameters

Optimisation options

Advanced

Economics

Arms and Traffic Streams

Arms

Traffic Streams

Lanes

Signals

Give Way Data

Give Way Data - All Movements - Conflicts

Signal Timings

Network Default: 94s cycle time; 94 steps

Interstage Matrix for Controller Stream 1

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	0	22	22	1	7
	2	✓	2	B	22	43	21	1	7
	3	✓	3	C	49	87	38	1	7
	4	✓	4	D	87	0	7	1	7

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS: Controller stream	SIGNALS: Phase	SIGNALS: Second phase	FLOWS: Calculated flow entering (PCU/hr)	FLOWS: Calculated sat flow (PCU/hr)	PERFORMANCE: Actual green (s (per cycle))	PERFORMANCE: Wasted time total (s (per cycle))	PERFORMANCE: Degree of saturation (%)	PERFORMANCE: Practical reserve capacity (%)	PER PCU: JourneyTime (s)	PER PCU: Mean Delay per Veh (s)	PER PCU: Mean stops per Veh (%)
1	1 NB		1	1	C		527 <	1532	38	0,00	83	9	46,23	37,61	99,89
2	1 NB		1	1	A	B	386	1865	43	20,00	68	31	41,20	31,29	92,94
3	1 NB		1	1	A		362	1747	22	0,00	85	6	73,00	55,17	114,57
4	1 NB						442	Unrestricted	94	40,00	0	Unrestricted	12,79	0,00	0,00
5	1 NB						366	Unrestricted	94	4,00	0	Unrestricted	18,69	0,00	0,00
6	1 NB						467	Unrestricted	94	18,00	0	Unrestricted	12,49	0,00	0,00
7	1 NB			1	A	B	262 <	798	43	0,00	70	28	19,73	18,41	84,01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	254,37	23,46	10,84	9,65	5,33	212,75	17,99	0,00	230,74
Bus	12,38	1,59	7,78	0,50	0,26	10,86	0,27	0,00	11,13
Tram	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Pedestrians									
TOTAL	266,75	25,05	10,65	10,16	5,59	223,61	18,26	0,00	241,87

- N = at least one source for this link/traffic stream carries normal traffic
- B = at least one source for this link/traffic stream carries Bus traffic
- < = 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

A1 - J6 -2024 DN
D1 - AM Peak*

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 (PCU-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	Item with worst over PR
1	03/04/2020 17:55:04	03/04/2020 17:55:04	08:00	94	158,75	10,10	74,07	1/1	0	0	1/1	4/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 -2024 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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)
94		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	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5,75		✓

Normal Traffic parameters

Normal Traffic Types

Bus parameters

Tram parameters

Pedestrian parameters

Optimisation options

Advanced

Economics

Arms and Traffic Streams

Arms

TRANSYT 15

Filename: (new file)
Path:
Report generation date: 03/04/2020 17:56:19

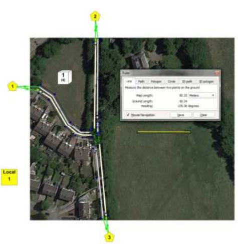
File summary

Model and Results

Units

Sorting

Network Diagrams



Traffic Streams

Lanes

Signals

Give Way Data

Give Way Data - All Movements - Conflicts

Signal Timings

Network Default: 94s cycle time; 94 steps

Interstage Matrix for Controller Stream 1

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	0	22	22	1	7
	2	✓	2	B	22	40	18	1	7
	3	✓	3	C	46	87	41	1	7
	4	✓	4	D	87	0	7	1	7

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS: Controller stream	SIGNALS: Phase	SIGNALS: Second phase	FLOWS: Calculated flow entering (PCU/hr)	FLOWS: Calculated sat flow (PCU/hr)	PERFORMANCE: Actual green (s (per cycle))	PERFORMANCE: Wasted time total (s (per cycle))	PERFORMANCE: Degree of saturation (%)	PERFORMANCE: Practical reserve capacity (%)	PER PCU: JourneyTime (s)	PER PCU: Mean Delay per Veh (s)	PER PCU: Mean stops per Veh (%)
1	1 NB		1	1	C		507	1532	41	0,00	74	22	37,26	28,86	87,70
2	1 NB		1	1	A	B	409	1865	40	8,99	62	46	35,89	26,89	84,79
3	1 NB		1	1	A		203	1766	22	0,00	47	92	51,37	33,97	87,36
4	1 NB						392	Unrestricted	94	47,00	0	Unrestricted	12,00	0,00	0,00
5	1 NB						268	Unrestricted	94	2,00	0	Unrestricted	18,00	0,00	0,00
6	1 NB						459	Unrestricted	94	20,00	0	Unrestricted	12,00	0,00	0,00
7	1 NB			1	A	B	300 <	1038	40	0,00	66	36	13,98	12,78	84,24

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	223,90	17,56	12,75	7,73	2,37	143,44	15,32	0,00	158,75
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									
TOTAL	223,90	17,56	12,75	7,73	2,37	143,44	15,32	0,00	158,75

- N = at least one source for this link/traffic stream carries normal traffic
- B = at least one source for this link/traffic stream carries Bus traffic
- < = 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

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: (new file)
Path:
Report generation date: 03/04/2020 17:59:25

File summary

File description

File title	Junction 6 2024 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
Description	

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

A2 - J6 - 2024 DS
D2 - PM Peak*

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 (PCU-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
2	03/04/2020 17:49:29	03/04/2020 17:49:29	17:15	94	102.09	6.48	49.56	7/1	0	0	7/1	4/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 - 2024 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM Peak				17:15	

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)
94		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 RedwithAmber (s)

Arms and Traffic Streams

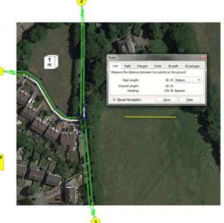
Signal Timings

Final Prediction Table

TRANSYT 15

«A1 - J6 - 2024 DM : D1 - AM Peak* :

Network Diagrams



A1 - J6 - 2024 DM
D1 - AM Peak*

Summary

Network Options

Arms and Traffic Streams

TRANSYT 15

«A2 - J6 - 2024 DM : D2 - PM Peak* :

Network Diagrams

Signal Timings

Final Prediction Table

A2 - J6 - 2024 DM
D2 - PM Peak*

Summary

Network Options

Arms and Traffic Streams

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
1	1				70,00	✓	Sum of lanes	1532	✓		Normal, Bus	
2	1				75,00	✓	Sum of lanes	1865	✓		Normal, Bus	
3	1				145,00	✓	Sum of lanes	1766	✓		Normal, Bus	
4	1				100,00						Normal, Bus	
5	1				150,00						Normal, Bus	
6	1				100,00						Normal, Bus	
7	1				10,00	✓	Sum of lanes	1492	✓	✓	Normal, Bus	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	6,00	✓	1532
2	1	1	(untitled)		✓	N/A	N/A	0	2,50	✓	0	99999,00	✓	1865
3	1	1	(untitled)		✓	N/A	N/A	0	3,50	✓	45	6,00	✓	1766
4	1	1	(untitled)											
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)		✓	N/A	N/A	0	2,50	✓	100	6,00	✓	1492

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A	✓	B
3	1	1	A		
7	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Stepwise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
7	1	All Traffic	✓	0	✓	6,00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	3/1	100		0	0

Signal Timings

Network Default: 94s cycle time; 94 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	6	0
	3	0	5	0	0
	4	0	0	0	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	79	16	31	1	7
	2	✓	2	B	16	29	13	1	7
	3	✓	3	C	35	65	30	1	7
	4	✓	4	D	65	79	14	1	7

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 (PCU/hr)	Calculated sat flow (PCU/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 (%)	Mea ma que (PC
1	1 NB		1	1	C		244	1532	30	0,00	48	86	37,58	28,42	80,95	5,2
2	1 NB		1	1	A	B	337	1865	44	7,20	45	100	28,49	19,17	72,93	6,5
3	1 NB		1	1	A		324	1766	31	0,00	54	67	47,26	28,52	82,14	7,0
4	1 NB						307	Unrestricted	94	45,00	0	Unrestricted	12,39	0,00	0,00	0,0
5	1 NB						265	Unrestricted	94	10,00	0	Unrestricted	18,27	0,00	0,00	0,0
6	1 NB						333	Unrestricted	94	20,00	0	Unrestricted	13,62	0,00	0,00	0,0
7	1 NB			1	A	B	162 <	823	44	0,00	41	119	12,50	11,24	79,60	2,14

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	182,46	12,41	14,70	5,53	0,80	89,91	9,83	0,00	99,75
Bus	12,25	1,28	9,58	0,40	0,06	6,56	0,17	0,00	6,73
Tram	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Pedestrians									
TOTAL	194,71	13,69	14,22	5,93	0,86	96,47	10,00	0,00	106,47

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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***

A1 - J6 - 2039 DN
D1 - AM Peak*

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 (PCU-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	03/04/2020 18:11:23	03/04/2020 18:11:23	08:00	94	392,05	25,88	97,34	7/1	2	29	7/1	4/1	7/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 - 2039 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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)
94		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	90	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	0,34	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^(-2))	Stationary time coefficient	Cruise time coefficient
Tram	1,00	Default	0,34	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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
2			1
3			1
4			
5			
6			
7			

TRANSYT 15

Filename: (new file)
Path:
Report generation date: 03/04/2020 18:11:30

File summary

File description

File title	Junction 6 2039 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua,lai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

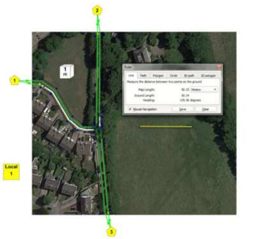
Units

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	PCU	PCU	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



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
1	1				70,00	✓	Sum of lanes	1532	✓		Normal, Bus	
2	1				75,00	✓	Sum of lanes	1865	✓		Normal, Bus	
3	1				145,00	✓	Sum of lanes	1815	✓		Normal, Bus	
4	1				100,00						Normal, Bus	
5	1				150,00						Normal, Bus	
6	1				100,00						Normal, Bus	
7	1				10,00	✓	Sum of lanes	1492	✓	✓	Normal, Bus	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	6,00	✓	1532
2	1	1	(untitled)		✓	N/A	N/A	0	2,50	✓	0	99999,00	✓	1865
3	1	1	(untitled)		✓	N/A	N/A	0	3,50	✓	33	6,00	✓	1815
4	1	1	(untitled)											
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)		✓	N/A	N/A	0	2,50	✓	100	6,00	✓	1492

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A	✓	B
3	1	1	A		
7	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Stepwise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
7	1	All Traffic	✓	0	✓	6,00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	3/1	100		0	0

Signal Timings

Network Default: 94s cycle time; 94 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	6	0
	3	0	5	0	0
	4	0	0	0	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	0	22	22	1	7
	2	✓	2	B	22	41	19	1	7
	3	✓	3	C	47	87	40	1	7
	4	✓	4	D	87	0	7	1	7

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 (PCU/hr)	Calculated sat flow (PCU/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 (%)	Me ma que (PC
1	1 NB		1	1	C		587 <	1532	40	0,00	88	2	50,64	42,04	106,55	16, +
2	1 NB		1	1	A	B	507 <	1865	41	42,00	90	0	63,79	54,10	118,86	16, +
3	1 NB		1	1	A		322	1815	22	0,00	73	24	60,90	43,01	100,58	8,6
4	1 NB						476	Unrestricted	94	38,00	0	Unrestricted	12,73	0,00	0,00	0,0
5	1 NB						317	Unrestricted	94	3,00	0	Unrestricted	18,79	0,00	0,00	0,0
6	1 NB						623	Unrestricted	94	17,00	0	Unrestricted	12,37	0,00	0,00	0,0
7	1 NB			1	A	B	370 <	851	41	0,00	97	-8	74,68	73,39	137,54	8,95

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	274,57	33,60	8,17	10,97	13,48	347,20	24,46	0,00	371,66
Bus	12,38	2,24	5,53	0,53	0,88	20,05	0,35	0,00	20,40
Tram	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Pedestrians									
TOTAL	286,95	35,84	8,01	11,50	14,36	367,25	24,80	0,00	392,05

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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

Filename: (new file)
Path:
Report generation date: 31/03/2020 14:11:53

File summary

File description

File title	Junction 6 2039 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua,lai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

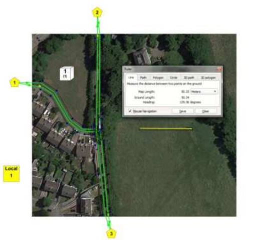
Units

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	PCU	PCU	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



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
1	1				70,00	✓	Sum of lanes	1532	✓		Normal, Bus	
2	1				75,00	✓	Sum of lanes	1865	✓		Normal, Bus	
3	1				145,00	✓	Sum of lanes	1832	✓		Normal, Bus	
4	1				100,00						Normal, Bus	
5	1				150,00						Normal, Bus	
6	1				100,00						Normal, Bus	
7	1				10,00	✓	Sum of lanes	1492	✓	✓	Normal, Bus	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3,30	✓	100	6,00	✓	1532
2	1	1	(untitled)		✓	N/A	N/A	0	2,50	✓	0	99999,00	✓	1865
3	1	1	(untitled)		✓	N/A	N/A	0	3,50	✓	29	6,00	✓	1832
4	1	1	(untitled)											
5	1	1	(untitled)											
6	1	1	(untitled)											
7	1	1	(untitled)		✓	N/A	N/A	0	2,50	✓	100	6,00	✓	1492

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	C		
2	1	1	A	✓	B
3	1	1	A		
7	1	1	A	✓	B

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Stepwise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
7	1	All Traffic	✓	0	✓	6,00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	3/1	100		0	0

Signal Timings

Network Default: 94s cycle time; 94 steps

Interstage Matrix for Controller Stream 1

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	6	0
	3	0	5	0	0
	4	0	0	0	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	79	16	31	1	7
	2	✓	2	B	16	29	13	1	7
	3	✓	3	C	35	65	30	1	7
	4	✓	4	D	65	79	14	1	7

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 (PCU/hr)	Calculated sat flow (PCU/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 (%)	Mea ma que (PC
1	1 NB		1	1	C		263	1532	30	0,00	52	73	38,43	29,33	82,73	5,8
2	1 NB		1	1	A	B	426	1865	44	7,65	57	58	32,11	22,86	78,79	9,0
3	1 NB		1	1	A		292	1832	31	0,00	47	92	45,75	26,86	79,02	6,1
4	1 NB						339	Unrestricted	94	43,00	0	Unrestricted	12,35	0,00	0,00	0,0
5	1 NB						231	Unrestricted	94	13,00	0	Unrestricted	18,31	0,00	0,00	0,0
6	1 NB						411	Unrestricted	94	19,00	0	Unrestricted	13,31	0,00	0,00	0,0
7	1 NB			1	A	B	254 <	898	44	0,00	59	52	13,64	12,40	85,30	2,42

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-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	192,65	13,85	13,91	6,21	1,22	105,52	11,86	0,00	117,38
Bus	12,25	1,29	9,51	0,41	0,07	6,68	0,17	0,00	6,86
Tram	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Pedestrians									
TOTAL	204,89	15,14	13,53	6,61	1,29	112,20	12,03	0,00	124,23

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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 - J6 - 2039 DN
D2 - PM Peak*

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 (PCU-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	31/03/2020 12:29:12	31/03/2020 12:29:12	17:15	94	124,23	7,90	59,11	7/1	0	0	7/1	4/1	7/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 - 2039 DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM Peak				17:15	

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)
94		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	90	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	0,34	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^(-2))	Stationary time coefficient	Cruise time coefficient
Tram	1,00	Default	0,34	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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1			1
2			1
3			1
4			
5			
6			
7			

TRANSYT 15

Filename: (new file)
Path:
Report generation date: 03/04/2020 18:11:30

File summary

File description

File title	Junction 6 2039 DN
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua,lai
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
			✓		✓	✓	✓	✓	✓	✓	✓		

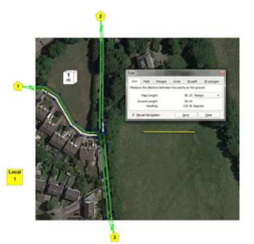
Units

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	PCU	PCU	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



A1 - J6 - 2039 DN
D1 - AM Peak*

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 (PCU-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
1	03/04/2020 18:11:23	03/04/2020 18:11:23	08:00	94	392.05	25.86	97.34	7/1	2	29	7/1	4/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 - 2039 DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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)
94		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

Advanced

Normal Traffic parameters
Normal Traffic Types
Bus parameters
Tram parameters
Pedestrian parameters
Optimisation options
Advanced
Economics

Arms and Traffic Streams

Arms

TRANSYT 15

Version: 15.5.2.7994

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: (new file)
Path:
Report generation date: 03/04/2020 18:13:48

File summary

File description

File title	Junction 6 2039 DS
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
Description	

Model and Results
Units
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

Traffic Streams
Lanes
Signals
Give Way Data
Give Way Data - All Movements - Conflicts

Signal Timings

Network Default: 94s cycle time; 94 steps

Intergreen Matrix for Controller Stream 1

Resultant Stages

Final Prediction Table

Traffic Stream Results
Network Results

A2 - J6 - 2039 DS
D2 - PM Peak*

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 (PCU-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
2	03/04/2020 18:03:08	03/04/2020 18:03:08	17:15	94	125.35	7.97	59.11	7/1	0	0	7/1	4/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 - 2039 DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM Peak				17:15	

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)
94		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
Advanced

Normal Traffic parameters
Normal Traffic Types
Bus parameters
Tram parameters
Pedestrian parameters
Optimisation options
Advanced
Economics

Arms and Traffic Streams

Arms

Traffic Streams
Lanes
Signals
Give Way Data
Give Way Data - All Movements - Conflicts

Signal Timings

Network Default: 94s cycle time; 94 steps

Intergreen Matrix for Controller Stream 1

Resultant Stages

Final Prediction Table

Traffic Stream Results
Network Results

A1 - J6 - 2039 DM
D1 - AM Peak*

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 (PCU-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
1	31/03/2020 12:38:17	31/03/2020 12:38:17	08:00	94	242.22	15.69	88.82	1/1	0	0	1/1	4/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
J6 - 2039 DM		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM Peak				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)
94		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
Advanced

Normal Traffic parameters
Normal Traffic Types
Bus parameters
Tram parameters
Pedestrian parameters
Optimisation options
Advanced
Economics

Arms and Traffic Streams

Arms

TRANSYT 15

Filename: (new file)
Path:
Report generation date: 31/03/2020 14:08:08

File summary
File description
Model and Results
Units
Sorting

Network Diagrams

Traffic Streams
Lanes
Signals
Give Way Data
Give Way Data - All Movements - Conflicts

Signal Timings

Network Default: 94s cycle time; 94 steps

Intergreen Matrix for Controller Stream 1

Resultant Stages

Final Prediction Table

Traffic Stream Results
Network Results

TRANSYT 15

Filename: (new file)
Path:
Report generation date: 15/03/2022 12:05:21

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tal
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	PCU	PCU	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	✓

A1 - Site Entrance
D1 - 2024 DS AM*

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 (PCU-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	Re wit wor over PR
1	15/03/2022 12:02:32	15/03/2022 12:02:32	08:00	90	81.98	5.00	67.65	1/1	0	0	1/1	6/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Site Entrance		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2024 DS 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)
90		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				20.00	✓	Sum of lanes	2055			✓		Normal	
2	1				200.00	✓	Sum of lanes	4110			✓		Normal	
3	1				200.00								Normal	
4	1				5.00	✓	Sum of lanes	1915			✓		Normal, Bus	
5	1				200.00	✓	Sum of lanes	1800					Bus	
6	1				200.00	✓	Sum of lanes	1800					Normal	
7	1				60.00				✓	1800			Normal	
8	1				50.00	✓	Sum of lanes	1532				✓	Normal	
9	1				200.00	✓	Sum of lanes	1800			✓		Bus	
10	1				200.00								Bus	
11	1				200.00								Bus	
12	1				200.00								Normal	
13	1				7.00	✓	Sum of lanes	2055	✓	1800			Normal	
14	1				7.00	✓	Sum of lanes	1874	✓	1800			Normal, Bus	
15	1				5.00	✓	Sum of lanes	2055					Normal	
16	1				7.00	✓	Sum of lanes	1644	✓	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
		2	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
3	1	1	(untitled)											
		2	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
5	1	1	(untitled)											1800
6	1	1	(untitled)											1800
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
9	1	1	(untitled)											1800
10	1	1	(untitled)											
11	1	1	(untitled)											
12	1	1	(untitled)											
13	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	41	28.09	✓	1874
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00		1644

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
(ALL)	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
8	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	13/1	100		0	0
		TrafficStream	5/1	100		0	0

Signal Timings

Network Default: 90s cycle time; 90 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	0	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	61	35	64	1	7
	2	✓	2	B	40	61	21	1	21

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE					PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	D wei mu
1	1			1	A	1004 <	2055	64	0.00	68	33	11.71	9.31	53.45	14.09 +	
2	1			1	A	951	4110	64	0.00	32	181	28.81	4.81	34.11	8.53	
3	1					951	Unrestricted	90	6.00	0	Unrestricted	24.00	0.00	0.00	0.00	
4	1 NB			1	A	139 <	1915	64	0.12	10	794	5.03	3.91	29.17	1.05 +	
5	1 B					82	1800	90	5.00	5	1876	48.05	0.05	0.00	0.00	
6	1					973	1800	90	0.00	54	66	25.17	1.17	0.00	0.32	
7	1					28	Unrestricted	90	90.00	0	Unrestricted	7.20	0.00	0.00	0.00	
8	1					114	300	90	39.00	38	137	9.66	3.66	0.00	0.12	
9	1 B			1	A	104	1800	64	0.00	8	1025	51.83	3.83	28.44	0.75	
10	1 B					104	Unrestricted	90	21.00	0	Unrestricted	48.00	0.00	0.00	0.00	
11	1 B					82	Unrestricted	90	23.00	0	Unrestricted	48.00	0.00	0.00	0.00	
12	1					1061	Unrestricted	90	4.00	0	Unrestricted	24.00	0.00	0.00	0.00	
13	1					947	2055	90	39.00	46	95	1.75	0.75	0.00	0.20	
14	1 NB					139	1874	90	25.00	7	1113	1.48	0.08	0.00	0.00	
15	1					1004	2055	90	24.00	49	84	1.84	0.84	0.00	0.23	
16	1					26	1644	90	90.00	2	5591	1.02	0.02	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	827.06	32.53	25.43	4.79	68.06	10.87	0.00	78.93
Bus	75.38	5.23	14.42	0.20	2.88	0.17	0.00	3.04
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians								
TOTAL	902.44	37.75	23.90	5.00	70.94	11.04	0.00	81.98

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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: (new file)
Path:
Report generation date: 15/03/2022 12:04:07

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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	PCU	PCU	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	✓

A2 - Site Entrance
D2 - 2024 DS PM*

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 (PCU-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 ove PR
2	15/03/2022 12:04:05	15/03/2022 12:04:05	17:15	90	88.17	5.38	68.86	1/1	0	0	1/1	6/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Site Entrance		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2024 DS PM				17:15	

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)
90		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	90	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			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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				20.00	✓	Sum of lanes	2055			✓		Normal	
2	1				200.00	✓	Sum of lanes	4110			✓		Normal	
3	1				200.00								Normal	
4	1				5.00	✓	Sum of lanes	1915			✓		Normal, Bus	
5	1				200.00	✓	Sum of lanes	1800					Bus	
6	1				200.00	✓	Sum of lanes	1800					Normal	
7	1				60.00				✓	1800			Normal	
8	1				50.00	✓	Sum of lanes	1532				✓	Normal	
9	1				200.00	✓	Sum of lanes	1800			✓		Bus	
10	1				200.00								Bus	
11	1				200.00								Bus	
12	1				200.00								Normal	
13	1				7.00	✓	Sum of lanes	2055	✓	1800			Normal	
14	1				7.00	✓	Sum of lanes	1898	✓	1800			Normal, Bus	
15	1				5.00	✓	Sum of lanes	2055					Normal	
16	1				7.00	✓	Sum of lanes	1644	✓	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
		2	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
3	1	1	(untitled)											
		2	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
5	1	1	(untitled)											1800
6	1	1	(untitled)											1800
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
9	1	1	(untitled)											1800
10	1	1	(untitled)											
11	1	1	(untitled)											
12	1	1	(untitled)											
13	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	17	28.09	✓	1898
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00		1644

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
(ALL)	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
8	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	13/1	100		0	0
		TrafficStream	5/1	100		0	0

Signal Timings

Network Default: 90s cycle time; 90 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	0	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	66	40	64	1	7
	2	✓	2	B	45	66	21	1	21

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	D wei mu
1	1			1	A	1022 <	2055	64	0.00	69	31	11.97	9.57	54.48	14.67 +	
2	1			1	A	1045	4110	64	0.00	35	156	28.99	4.99	35.19	9.67	
3	1					1045	Unrestricted	90	5.00	0	Unrestricted	24.00	0.00	0.00	0.00	
4	1 NB			1	A	121 <	1915	64	0.06	9	928	5.03	3.86	28.42	0.88 +	
5	1 B					100	1800	90	1.00	6	1520	48.06	0.06	0.00	0.00	
6	1					1110	1800	90	0.00	62	46	25.60	1.60	0.00	0.49	
7	1					109	Unrestricted	90	0.00	0	Unrestricted	7.20	0.00	0.00	0.00	
8	1					42	265	90	90.00	16	468	7.27	1.27	0.00	0.01	
9	1 B			1	A	87	1800	64	0.00	7	1245	51.77	3.77	28.41	0.63	
10	1 B					87	Unrestricted	90	23.00	0	Unrestricted	48.00	0.00	0.00	0.00	
11	1 B					100	Unrestricted	90	22.00	0	Unrestricted	48.00	0.00	0.00	0.00	
12	1					1043	Unrestricted	90	5.00	0	Unrestricted	24.00	0.00	0.00	0.00	
13	1					1001	2055	90	40.00	49	85	1.83	0.83	0.00	0.23	
14	1 NB					121	1898	90	25.00	6	1312	1.63	0.06	0.00	0.00	
15	1					1022	2055	90	24.00	50	81	1.87	0.87	0.00	0.25	
16	1					109	1644	90	0.00	7	1257	1.08	0.08	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	890.81	35.04	25.42	5.18	73.52	11.62	0.00	85.14
Bus	76.00	5.27	14.43	0.20	2.86	0.17	0.00	3.03
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians								
TOTAL	966.81	40.31	23.99	5.38	76.38	11.79	0.00	88.17

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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

Filename: (new file)
Path:
Report generation date: 15/03/2022 11:41:29

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tal
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	PCU	PCU	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	✓

A1 - Site Entrance
D1 - 2024 DM AM*

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 (PCU-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	Re wit wor over PR
1	15/03/2022 11:38:19	15/03/2022 11:38:19	08:00	90	56.69	3.41	54.78	1/1	0	0	1/1	6/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Site Entrance		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2024 DM 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)
90		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				20.00	✓	Sum of lanes	2055			✓		Normal	
2	1				200.00	✓	Sum of lanes	4110			✓		Normal	
3	1				200.00								Normal	
4	1				5.00	✓	Sum of lanes	1915			✓		Normal, Bus	
5	1				200.00	✓	Sum of lanes	1800					Bus	
6	1				200.00	✓	Sum of lanes	1800					Normal	
7	1				60.00				✓	1800			Normal	
8	1				50.00	✓	Sum of lanes	1532				✓	Normal	
9	1				200.00	✓	Sum of lanes	1800			✓		Bus	
10	1				200.00								Bus	
11	1				200.00								Bus	
12	1				200.00								Normal	
13	1				7.00	✓	Sum of lanes	2055	✓	1800			Normal	
14	1				7.00	✓	Sum of lanes	1895	✓	1800			Normal, Bus	
15	1				5.00	✓	Sum of lanes	2055					Normal	
16	1				7.00	✓	Sum of lanes	1644	✓	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
		2	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
3	1	1	(untitled)											
		2	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
5	1	1	(untitled)											1800
6	1	1	(untitled)											1800
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
9	1	1	(untitled)											1800
10	1	1	(untitled)											
11	1	1	(untitled)											
12	1	1	(untitled)											
13	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	20	28.09	✓	1895
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00		1644

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
(ALL)	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
8	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	13/1	100		0	0
		TrafficStream	5/1	100		0	0

Signal Timings

Network Default: 90s cycle time; 90 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	0	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	61	35	64	1	7
	2	✓	2	B	40	61	21	1	21

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE					PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	D wei mu
1	1			1	A	813 <	2055	64	0.00	55	64	9.61	7.21	44.51	9.59 +	
2	1			1	A	865	4110	64	0.00	29	209	28.65	4.65	33.10	7.51	
3	1					865	Unrestricted	90	6.00	0	Unrestricted	24.00	0.00	0.00	0.00	
4	1 NB			1	A	103	1915	64	0.06	7	1107	4.97	3.81	28.39	0.75	
5	1 B					82	1800	90	0.00	5	1876	48.05	0.05	0.00	0.00	
6	1					806	1800	90	0.00	45	101	24.81	0.81	0.00	0.18	
7	1					14	Unrestricted	90	90.00	0	Unrestricted	7.20	0.00	0.00	0.00	
8	1					42	411	90	90.00	10	780	6.50	0.50	0.00	0.01	
9	1 B			1	A	104	1800	64	0.00	8	1025	51.83	3.83	28.44	0.75	
10	1 B					104	Unrestricted	90	21.00	0	Unrestricted	48.00	0.00	0.00	0.00	
11	1 B					82	Unrestricted	90	23.00	0	Unrestricted	48.00	0.00	0.00	0.00	
12	1					834	Unrestricted	90	6.00	0	Unrestricted	24.00	0.00	0.00	0.00	
13	1					792	2055	90	28.00	39	134	1.55	0.55	0.00	0.12	
14	1 NB					103	1895	90	25.00	5	1556	1.60	0.05	0.00	0.00	
15	1					813	2055	90	24.00	40	127	1.57	0.57	0.00	0.13	
16	1					14	1644	90	90.00	1	10469	1.01	0.01	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	703.16	26.77	26.26	3.21	45.53	8.15	0.00	53.68
Bus	75.38	5.23	14.43	0.20	2.84	0.17	0.00	3.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians								
TOTAL	778.54	32.00	24.33	3.41	48.37	8.32	0.00	56.69

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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: (new file)
Path:
Report generation date: 15/03/2022 11:56:19

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tai
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	PCU	PCU	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	✓

A1 - Site Entrance
D1 - 2039 DS AM*

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 (PCU-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	15/03/2022 11:56:17	15/03/2022 11:56:17	08:00	90	95.27	5.85	72.16	1/1	0	0	1/1	6/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Site Entrance		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2039 DS 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)
90		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	90	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			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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				20.00	✓	Sum of lanes	2055			✓		Normal	
2	1				200.00	✓	Sum of lanes	4110			✓		Normal	
3	1				200.00								Normal	
4	1				5.00	✓	Sum of lanes	1915			✓		Normal, Bus	
5	1				200.00	✓	Sum of lanes	1800					Bus	
6	1				200.00	✓	Sum of lanes	1800					Normal	
7	1				60.00				✓	1800			Normal	
8	1				50.00	✓	Sum of lanes	1532				✓	Normal	
9	1				200.00	✓	Sum of lanes	1800			✓		Bus	
10	1				200.00								Bus	
11	1				200.00								Bus	
12	1				200.00								Normal	
13	1				7.00	✓	Sum of lanes	2055	✓	1800			Normal	
14	1				7.00	✓	Sum of lanes	1879	✓	1800			Normal, Bus	
15	1				5.00	✓	Sum of lanes	2055					Normal	
16	1				7.00	✓	Sum of lanes	1644	✓	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
		2	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
3	1	1	(untitled)											
		2	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
5	1	1	(untitled)											1800
6	1	1	(untitled)											1800
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
9	1	1	(untitled)											1800
10	1	1	(untitled)											
11	1	1	(untitled)											
12	1	1	(untitled)											
13	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	36	28.09	✓	1879
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00		1644

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
(ALL)	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
8	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	13/1	100		0	0
		TrafficStream	5/1	100		0	0

Signal Timings

Network Default: 90s cycle time; 90 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	0	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	61	35	64	1	7
	2	✓	2	B	40	61	21	1	21

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE					PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	D wei mu
1	1			1	A	1071 <	2055	64	0.00	72	25	12.77	10.37	57.56	16.40 +	
2	1			1	A	988	4110	64	0.00	33	170	28.87	4.87	34.31	8.87	
3	1					988	Unrestricted	90	5.00	0	Unrestricted	24.00	0.00	0.00	0.00	
4	1 NB			1	A	160 <	1915	64	0.12	12	677	5.12	4.00	29.54	1.21 +	
5	1 B					103	1800	90	8.00	6	1473	48.06	0.06	0.00	0.00	
6	1					1040	1800	90	0.00	58	56	25.36	1.36	0.00	0.39	
7	1					26	Unrestricted	90	90.00	0	Unrestricted	7.20	0.00	0.00	0.00	
8	1					114	256	90	44.00	44	103	11.50	5.50	0.00	0.17	
9	1 B			1	A	135	1800	64	0.00	10	767	51.92	3.92	28.73	1.02	
10	1 B					135	Unrestricted	90	19.00	0	Unrestricted	48.00	0.00	0.00	0.00	
11	1 B					103	Unrestricted	90	21.00	0	Unrestricted	48.00	0.00	0.00	0.00	
12	1					1128	Unrestricted	90	4.00	0	Unrestricted	24.00	0.00	0.00	0.00	
13	1					1014	2055	90	44.00	49	82	1.85	0.85	0.00	0.24	
14	1 NB					160	1879	90	25.00	9	957	1.53	0.09	0.00	0.00	
15	1					1071	2055	90	24.00	52	73	1.95	0.95	0.00	0.28	
16	1					26	1644	90	90.00	2	5591	1.02	0.02	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	870.80	34.78	25.04	5.58	79.23	12.06	0.00	91.29
Bus	96.44	6.69	14.41	0.27	3.77	0.22	0.00	3.99
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians								
TOTAL	967.24	41.47	23.32	5.85	83.00	12.27	0.00	95.27

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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

Filename: (new file)
Path:
Report generation date: 15/03/2022 11:56:47

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tal
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	PCU	PCU	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	✓

A2 - Site Entrance
D2 - 2039 DS PM*

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 (PCU-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	Re wit wor over PR
2	15/03/2022 11:56:17	15/03/2022 11:56:17	17:15	90	104.36	6.40	73.85	1/1	0	0	1/1	6/1	1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Site Entrance		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2039 DS PM				17:15	

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)
90		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	90	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			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	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

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
1	1				20.00	✓	Sum of lanes	2055			✓		Normal	
2	1				200.00	✓	Sum of lanes	4110			✓		Normal	
3	1				200.00								Normal	
4	1				5.00	✓	Sum of lanes	1915			✓		Normal, Bus	
5	1				200.00	✓	Sum of lanes	1800					Bus	
6	1				200.00	✓	Sum of lanes	1800					Normal	
7	1				60.00				✓	1800			Normal	
8	1				50.00	✓	Sum of lanes	1532				✓	Normal	
9	1				200.00	✓	Sum of lanes	1800			✓		Bus	
10	1				200.00								Bus	
11	1				200.00								Bus	
12	1				200.00								Normal	
13	1				7.00	✓	Sum of lanes	2055	✓	1800			Normal	
14	1				7.00	✓	Sum of lanes	1898	✓	1800			Normal, Bus	
15	1				5.00	✓	Sum of lanes	2055					Normal	
16	1				7.00	✓	Sum of lanes	1644	✓	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
		2	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
3	1	1	(untitled)											
		2	(untitled)											
4	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
5	1	1	(untitled)											1800
6	1	1	(untitled)											1800
7	1	1	(untitled)											
8	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
9	1	1	(untitled)											1800
10	1	1	(untitled)											
11	1	1	(untitled)											
12	1	1	(untitled)											
13	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
14	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	17	28.09	✓	1898
15	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
16	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00		1644

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
(ALL)	1	1	A	

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
8	1	AllTraffic	✓	0	✓	99999.00	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	13/1	100		0	0
		TrafficStream	5/1	100		0	0

Signal Timings

Network Default: 90s cycle time; 90 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	5
	2	0	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	66	40	64	1	7
	2	✓	2	B	45	66	21	1	21

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/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 (PCU)	D wei mu
1	1			1	A	1096 <	2055	64	0.00	74	22	13.24	10.84	59.26	17.17 +	
2	1			1	A	1135	4110	64	0.00	38	135	29.18	5.18	36.29	10.84	
3	1					1135	Unrestricted	90	4.00	0	Unrestricted	24.00	0.00	0.00	0.00	
4	1 NB			1	A	121 <	1915	64	0.06	9	928	5.03	3.86	28.42	0.88 +	
5	1 B					100	1800	90	1.00	6	1520	48.06	0.06	0.00	0.00	
6	1					1184	1800	90	0.00	66	37	25.91	1.91	0.00	0.63	
7	1					109	Unrestricted	90	0.00	0	Unrestricted	7.20	0.00	0.00	0.00	
8	1					42	227	90	90.00	18	387	7.79	1.79	0.00	0.02	
9	1 B			1	A	87	1800	64	0.00	7	1245	51.77	3.77	28.41	0.63	
10	1 B					87	Unrestricted	90	23.00	0	Unrestricted	48.00	0.00	0.00	0.00	
11	1 B					100	Unrestricted	90	22.00	0	Unrestricted	48.00	0.00	0.00	0.00	
12	1					1117	Unrestricted	90	4.00	0	Unrestricted	24.00	0.00	0.00	0.00	
13	1					1075	2055	90	45.00	52	72	1.96	0.96	0.00	0.29	
14	1 NB					121	1898	90	25.00	6	1312	1.63	0.06	0.00	0.00	
15	1					1096	2055	90	24.00	53	69	2.00	1.00	0.00	0.30	
16	1					109	1644	90	0.00	7	1257	1.08	0.08	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	958.78	38.33	25.01	6.20	87.99	13.34	0.00	101.33
Bus	76.00	5.27	14.43	0.20	2.86	0.17	0.00	3.03
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians								
TOTAL	1034.78	43.60	23.73	6.40	90.86	13.50	0.00	104.36

- *N = at least one source for this link/traffic stream carries normal traffic*
- *B = at least one source for this link/traffic stream carries Bus traffic*
- *< = 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

Filename: Site Entrance 2039 DM.t15
Path: C:\Users\joshua.tail\OneDrive - OCSC\Desktop\M1297\Site Entrance 20220209
Report generation date: 09/02/2022 14:28:38

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	25/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OCSC\joshua.tail
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

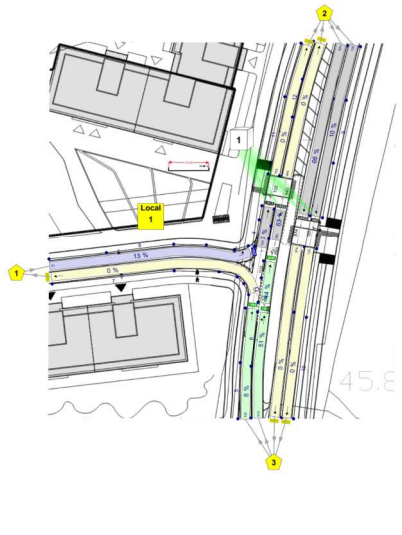
Units

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	PCU	PCU	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 / 90s , Timesteps 89 / 90
1, 1
Diagram produced using TRANSYT 15.5.2.7994