TRAFFIC IMPACT ASSESSMENT

PROPOSED STRATEGIC HOUSING DEVELOPMENT
'THE CONNOLLY QUARTER'

Oxley Holdings Limited
Project No. O635
9th October 2019

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NOTICE

DOCUMENT CONTROL & HISTORY

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1. INTRODUCTION

O'Connor Sutton Cronin & Associates (OCSC) have been commissioned to undertake this assessment with respect to the proposed development at the former Irish Rail lands adjacent Connolly Station in Dublin City Centre. The exact site location can be seen in *Figure 1* below.

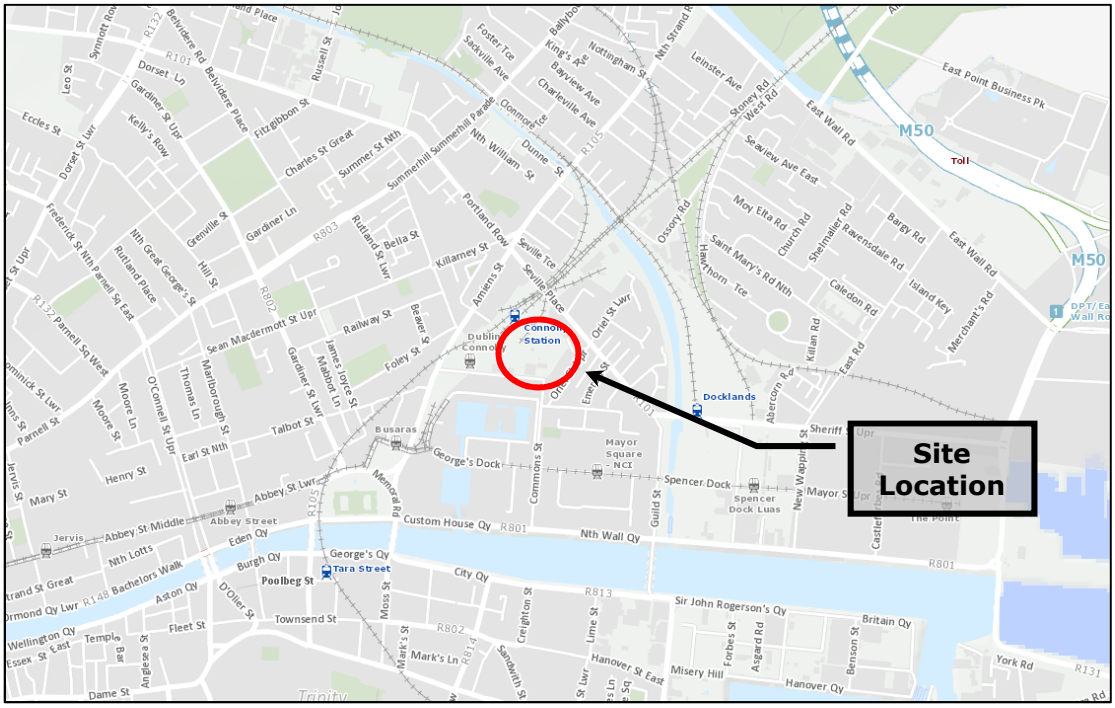


Figure 1: Site Location Map

This planning application is for a Strategic Housing Development (SHD) with minor ancillary retail and amenity elements as well as a small basement car park. It is expected that this development will form part of a larger masterplan development which will be mixed use in nature, comprising residential, commercial and hotel uses with additional ancillary retail and community elements. However, in order to ensure a conservative approach, this assessment has considered the potential traffic impact of the masterplan development.

Thus, the purpose of this report is to provide a detailed and conservative assessment of the development and masterplan 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;
- *Dublin City Council Development Plan 2016-2022*.

2. STUDY METHODOLOGY

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

- *Junction 1*: North Wall Quay/Samuel Beckett Bridge/Guild Street Signalised Junction;
- *Junction 2*: Guild Street/Seville Place/Sherriff Street Upper Signalised Junction;
- *Junction 3*: Seville Place/Oriel Street Priority Junction;
- *Junction 4*: Amiens Street/Portland Row/North Strand Road/Seville Place Signalised Junction;
- *Junction 5*: Amiens Street/Talbot Street Signalised Junction;
- *Junction 6:* Sherriff Street Lower/Irish Rail Car Park Entrance Priority Junction.

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

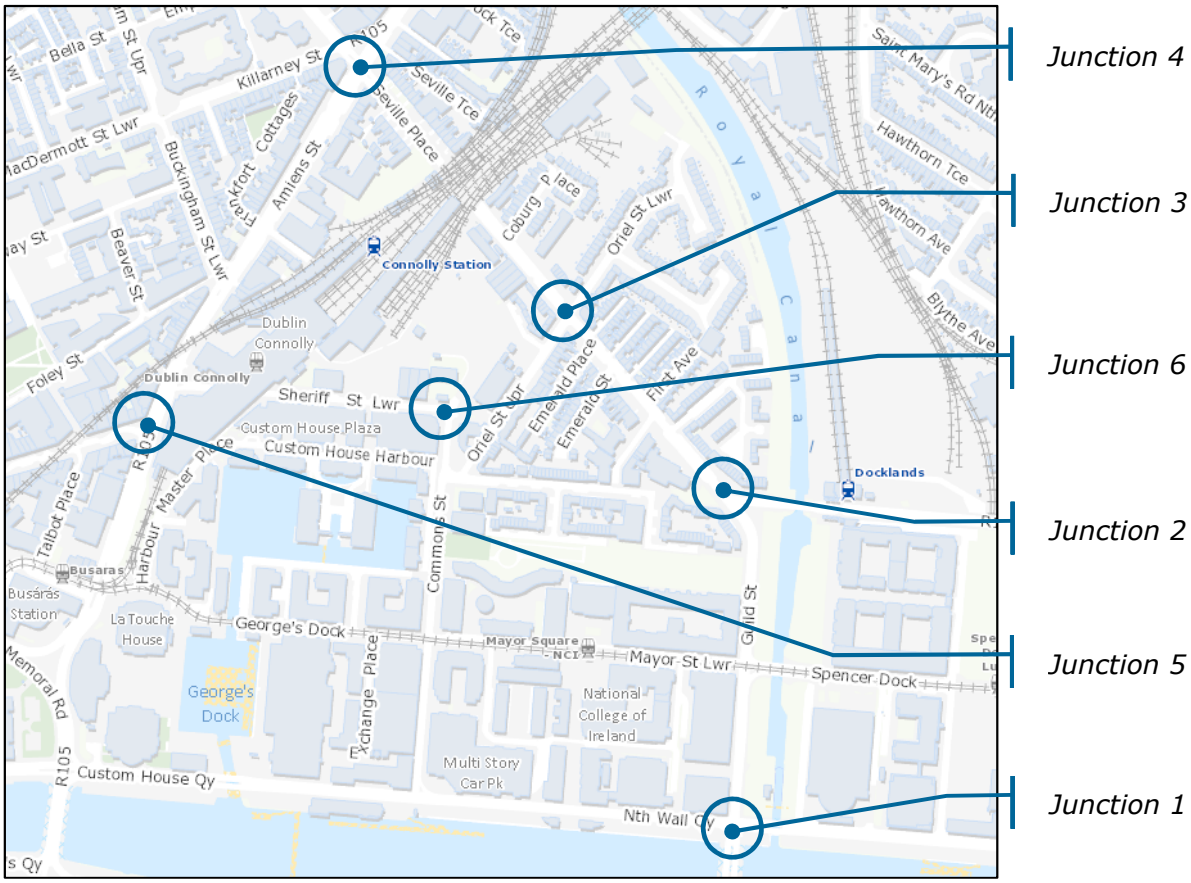


Figure 2: Traffic Counts Locations

The surveys took the form of 15 minute interval junction turning counts and were carried out on Thursday 4th October 2018 between the hours of 07:00 – 10:00 and 16:00 – 19:00.

A seven-fold classification system was used as follows:

- Bicycle;
- Motorcycle;
- Car;
- Taxi;
- Light Goods Vehicle;
- Heavy Goods Vehicle;
- 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 (2022) and the Design Year (2037) using medium range NRA growth factors[2].

While this application relates solely to the residential development and associated basement car parking, this assessment has also considered the

[1] Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections, TII (October 2016)
[2] Project Appraisal Guidelines for National Roads Unit 16.1 - Expansion Factors for Short Period Traffic Counts, TII(October 2016)

overall impact of the masterplan development. The traffic generation potential of this masterplan development was 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.

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 TII, CIHT, the *Design Manual for Roads and Bridges* (DMRB) and TRANSYT 15 traffic modelling software. The assessment considered both the Do-Something and Do-Nothing scenarios i.e. with and without the proposed development in place, to allow for the true impact to be assessed.

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

3. THE RECEIVING ENVIRONMENT

The receiving environment is urban in nature. The main transportation arteries in the study area are Amiens Street and Seville Place. 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.

As noted earlier, base traffic levels have been surveyed on the local network in 2018. By combining these base flows with the traffic generation estimates for the proposed development, the following peaks were identified:

- A.M. Peak Hour: 07:00 – 08:00;
- P.M. Peak Hour: 16:15 – 17:15.

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

–*Diagram 1: 2018 A.M. Peak Hour Base Flows (07:00 – 08:00);*
–*Diagram 2: 2018 A.M. Peak Hour Base Flows (16:15 – 17:15);*
–*Diagram 3: 2018 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)										
Carriageway Width (m)		*Total Number of lanes*								
		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 and shared cycle 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 (%)
North Wall Quay	6.10	1,020	531	52.1	501	49.1
Guild Street	9.00	1,530	442	28.9	579	37.8
Sherriff Street Upper	6.75	1,110	290	26.1	493	44.4
Seville Place	6.10	900	665	73.9	625	69.4
Amiens Street	9.00	1,650	1,372	83.2	1,120	67.9
North Strand Road	9.00	1,650	1,169	70.8	1,003	60.8
Portland Row	9.00	1,530	852	55.7	651	42.5
Oriel Street	6.10	750	359	47.9	234	31.2

Table 2: Base Year Link RFC Values for Local Network

As can be seen, the majority of links are shown to be operating well within capacity in the base case while Amiens Street experiences the highest RFC value of 83% in the A.M. peak hour.

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*
2022	5.47%	9.82%
2037	14.88%	45.26%

Table 3: Background Traffic Growth Factors

The future year traffic flows without the proposed development can be seen in the following:

- *Diagram 4: 2022 A.M. Peak Hour Flows – Do Nothing;*
- *Diagram 5: 2022 P.M. Peak Hour Flows – Do Nothing;*
- *Diagram 6: 2022 AADT – Do Nothing;*

- *Diagram 7: 2037 A.M. Peak Hour Flows – Do Nothing;*
- *Diagram 8: 2037 P.M. Peak Hour Flows – Do Nothing;*
- *Diagram 9: 2037 AADT – Do Nothing.*

4. CHARACTERISTICS OF THE DEVELOPMENT

EXISTING SITE OVERVIEW

The development site currently forms part of the Irish Rail lands associated with Connolly Station. It is bound by Sherriff Street Lower to the south, Oriel Street to the southwest, third party commercial and residential developments such as Oriel Hall to the northeast and Irish rail lands to the northwest.

The lands are primarily used as a car parking area for both staff and train users with a number of disused structures also present on the site. The existing layout of the masterplan lands can be seen below.

Figure 3: Development Site – Existing Layout

The existing site entrance is located on the corner of Sherriff Street Lower as indicated by the arrow above. There are currently 390 no. Irish Rail car parking spaces on the site, split approximately at 161 for staff and 229 for train users, as detailed in the following figure.

Figure 4: Existing Irish Rail Parking Provision

It is noted that this existing Irish Rail car parking is to be rationalised and reduced from the current 390 no. spaces to 180 no. spaces in total. This reduction will have a positive impact in terms of existing traffic travelling to and from the site.

PROPOSED DEVELOPMENT OVERVIEW

The proposed SHD application comprises the following:

- The demolition of 4 no. structures with a combined gross floor area of 3,028sq.m;
- The construction of 741 no. Build to Rent (BTR) residential units in 8 no. apartment blocks ranging in height from 4 storeys to 23 storeys with lower height buildings located adjacent to the northeast and east site

boundaries, with a cumulative gross floor area of 68,535sq.m comprising;

- Block B1 (maximum building height 54.917m, total gross internal floor area 11,260sq.m, Apartment Mix: Studio: 25, 1-bed: 37, 2-bed: 51);
- Block B2 (maximum building height 54.917m, total gross internal floor area 10,831sq.m, Apartment Mix: Studio: 20, 1-bed: 35, 2-bed: 51,);
- Block B3 (maximum building height 51.767m, total gross internal floor area 9,766sq.m, Apartment Mix: Studio: 22, 1-bed: 60, 2-bed: 27, 3-Bed: 1);
- Block C1 (maximum building height 79,450m, total gross internal floor area 12,705sq.m, Apartment Mix: Studio: 84, 1-bed: 40, 2-bed: 41);
- Block C2 (maximum building height 39,615 m, total gross internal floor area 4,890 sq.m, Apartment Mix: Studio: 9, 1-bed: 33, 2-bed: 3, 3-Bed: 4);
- Block C3 (maximum building height 39,650 m, total gross internal floor area 6,775sq.m, Apartment Mix: Studio: 40, 1-bed: 18, 2-bed: 23);
- Block D1 (maximum building height 53,392 m, total gross internal floor area 8,418 sq.m, Apartment Mix: Studio: 10, 1-bed: 25, 2-bed: 44, 3-Bed: 1);
- Block D2 (maximum building height 30,950 m, total gross internal floor area 3,890 sq.m, Apartment Mix: Studio: 18, 1-bed: 8, 2-bed: 11);

- Residential support amenities including 1 no. gyms, a resident's lounge, work areas, meeting rooms, dining rooms, recreational areas with a combined GFA of 1,444 sq.m;
- Change of use from club house to pedestrian passageway of the existing vault (137sq.m GFA) fronting Seville Place, a Protected Structure (RPS No. 130);
- A basement of 7,253.4 sq.m with vehicular access from Oriel Street Upper incorporating residents' car parking (58 no. spaces), residents

cycle parking (640 no. spaces) 7 no. plant rooms (combined 2,228sq.m), waste management facilities (393 sq.m)

- 766 no. covered cycle parking spaces for residents and visitors, concierge office (233 sq.m) and waste management facilities (126 sq.m);
- 'Other uses' including 10 no. units providing retail, commercial, and community use with a combined GFA of 3,142 sq.m;
- A total of 18,562 sq.m of hard and soft landscaping comprising both public, communal and private open space located throughout the development;
- A service and emergency vehicle only access ramp from the Oriel Street Upper site entrance to serve CIE's transport needs at Connolly Station;
- Enabling works of a non-material nature to safeguard the existing vaults (Protected Structures - RPS No. 130) that form part of the subject site fronting Sherriff Street Lower, Oriel Street Upper, and Seville Place during the construction phase;
- All associated ancillary development works including drainage, 6 no. electricity substations, pedestrian access; and
- Works to the Masonry wall fronting Oriel Street and the Vaults fronting Seville Place (both a Protected Structure) consisting of the creation of a new vehicular and pedestrian entrance

In addition to the above, this assessment has allowed for the buildout of the overall masterplan development which is estimated at this point in time to consist of an additional:

- 24,747m^2 Office;
- 7,765m^2 Hotel;
- 2,834m^2 Retail.

Ancillary retail, community and amenity elements units are not expected to be primary trip generators and are instead expected to serve residents at the development or locals already on the surrounding road network. As a result, they have not been included in this assessment from a trip generation perspective.

The proposed layout subject to this application is shown in *Figure 5* following.

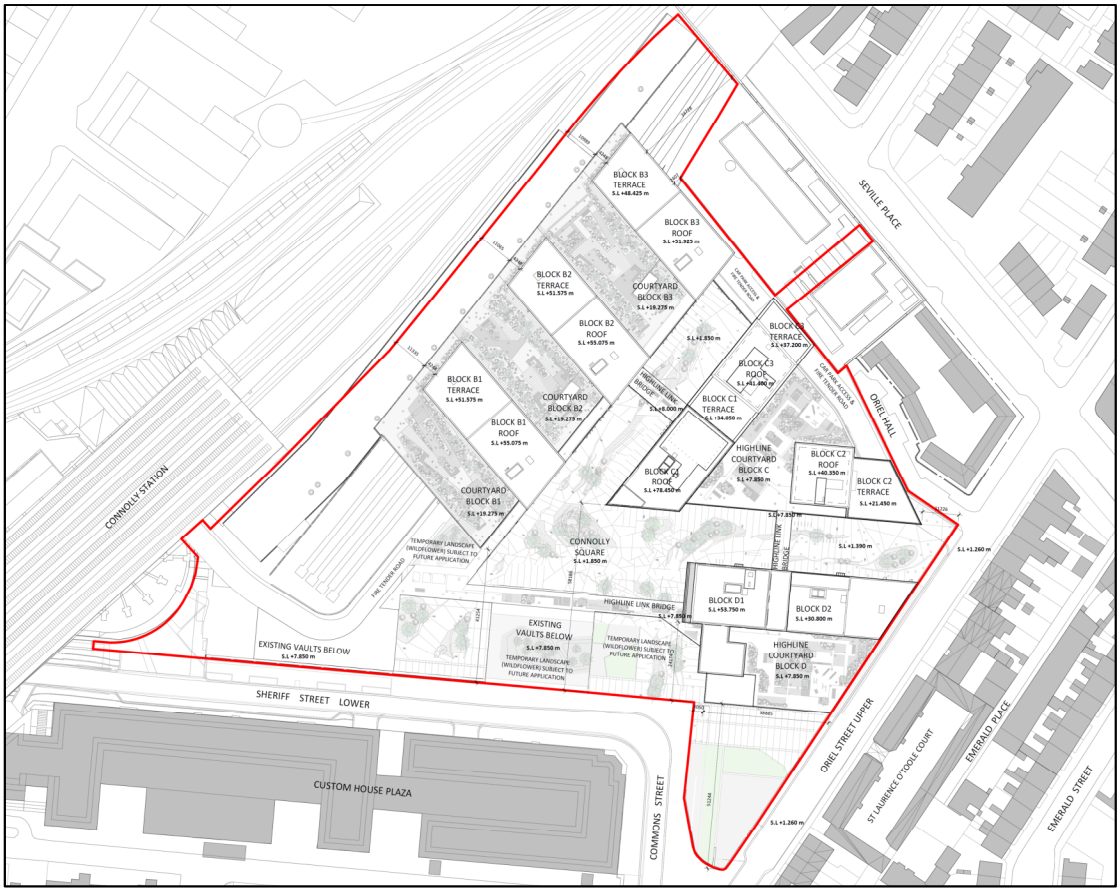


Figure 5: Indicative Site Layout

As can be seen, the development site will be served by a single access point on Oriel Street, with the existing entrance being decommissioned. This will serve as the sole vehicular entrance to the site.

TRIP GENERATION

It is noted that the albeit reduced allocation of Irish Rail car parking will continue to be a trip generator but re-routed through the new access on Oriel Street. The associated revised trip patterns of the reduced Irish Rail car parking have been developed on a pro-rata basis using the traffic survey data from the existing car park entrance and can be seen in the following:

- *Diagram 10: Revised Carpark Access A.M. Peak Hour Trip Generation & Assignment;*
- *Diagram 11: Revised Carpark Access P.M. Peak Hour Trip Generation & Assignment;*
- *Diagram 12: Revised Carpark Location AADT Trip Generation & Assignment.*

With regard to the proposed SHD development and masterplan development, the primary trip generators are expected to be the residential, commercial and hotel elements which make up the majority of uses. The remaining elements are expected to be ancillary meaning they will not generate bespoke trips by car and so have not been included in the trip generation estimates.

The traffic generation potential of the proposed and masterplan development has been estimated using the Trics software modelling database.

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.

Given the location of the development site, a particular emphasis was put on the level of parking provided at the respective survey sites. Despite this, it should be noted that the majority of suitable sites provided a level of parking considerably in excess of that proposed as part of this development, which intends to dedicate all residential car parking to car club vehicles which are not appropriate for commuting use. Nevertheless, this assessment has not allowed any reductions to account for this, thereby ensuring a robust and conservative assessment.

The cumulative trip generation estimates for the proposed masterplan development is shown in *Table 4.* It is noted that the trip generation estimates for the proposed SHD development subject to this application are as per the column head "Apartments".

Time Range	**Apartments**		**Office**		**Hotel**	
	Arrivals	*Departures*	*Arrivals*	*Departures*	*Arrivals*	*Departures*
00:00-01:00	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0
07:00-08:00	9	30	67	5	26	50
08:00-09:00	25	64	83	4	32	83
09:00-10:00	28	33	59	5	34	52
10:00-11:00	16	27	15	5	37	35
11:00-12:00	30	21	9	6	22	35
12:00-13:00	23	26	10	7	26	20
13:00-14:00	24	30	8	6	26	21
14:00-15:00	17	21	3	12	13	26
15:00-16:00	23	21	9	50	29	26
16:00-17:00	28	21	6	66	39	25
17:00-18:00	36	21	5	83	37	29
18:00-19:00	39	32	7	23	27	22
19:00-20:00	36	30	0	0	34	26
20:00-21:00	30	20	0	0	21	12
21:00-22:00	0	0	0	0	14	8
22:00-23:00	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0
Daily Trips:	363	396	281	273	415	470

Table 4: Estimated Masterplan Development Trip Generation

Based on the above, the masterplan development is expected to generate approximately 2,198 additional trips per day. Of these, approximately 101 arrivals and 84 departures are expected during the A.M. peak hour (07:00-08:00) while approximately 74 arrivals and 117 departures are expected in the P.M. peak hour (16:15-17:15).

Of particular note is that the cumulative trip generation for the apartments is considerably beyond the proposed parking allocation of 58 no. car club spaces meaning these estimates are again highlighted as being very conservative.

The additional traffic outlined in *Table 4* was assigned to the study area based on existing traffic flows in the area combined with an assessment of the local network layout.

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

- *Diagram 13: A.M. Peak Hour Trip Generation & Assignment;*
- *Diagram 14: P.M. Peak Hour Trip Generation & Assignment;*
- *Diagram 15: AADT Trip Generation & Assignment.*

SITE ACCESSIBILITY

The site is located in the centre of Dublin City within close proximity of a wide number of public transport services and sustainable transport infrastructure.

Rail

The site is located directly adjacent Connolly Station which provides direct access to a variety of rail services including:

- The Luas Red Line;
- DART;
- Commuter Rail;
- Intercity Rail.

The Red Line provides a regular service between The Point/Connolly Station and Tallaght/Saggart with intermediate stops at key locations including Busáras, Heuston Station, the Red Cow and Citywest. It also connects with the recently extended Luas Green Line at O'Connell Street.

The DART service runs a high frequency, fully segregated service between Bray/Greystones and Howth/Malahide with increased frequencies during peak commuting times. Intercity and Commuter Rail services from Connolly include services to:

- Sligo;
- Belfast;
- Rosslare Europort;
- Drogheda;
- Dundalk;
- Maynooth;
- Longford.

Bus

The development site is located approximately 500m (6 minutes) walk from Busáras bus station. This provides access to a wide variety of commuter, intercity and express bus services to and from locations all across Ireland.

There are a large number of Dublin Bus stops operating within short walking distance of the development site. The closest are located on Sherriff Street Lower and Amiens Street, directly adjacent the development site. These adjacent stops alone provide access to approximately 19 no. separate routes.

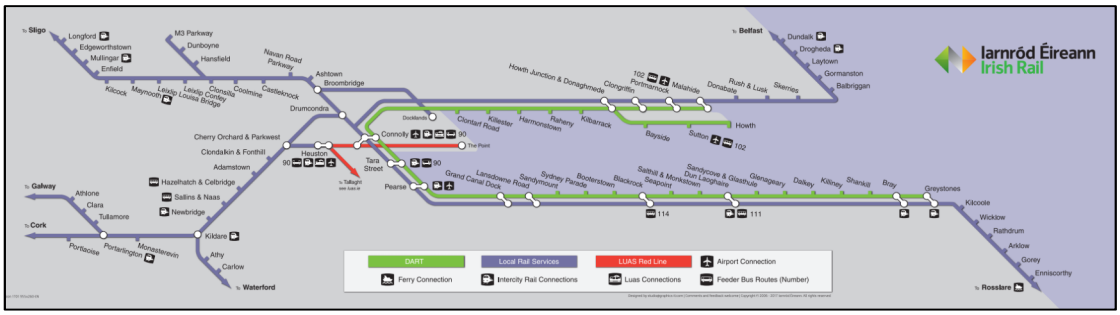


Figure 6: Irish Rail Network Map

Cycle

The local cycle facilities are shown in *Figure 7* following.

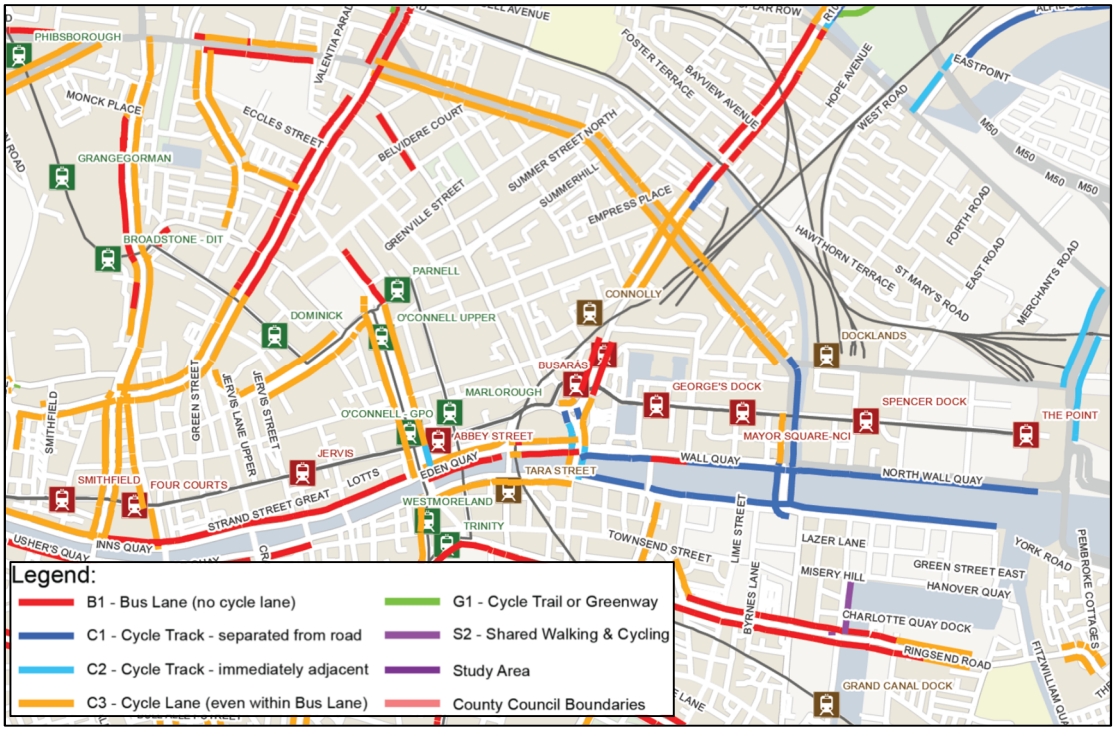


Figure 7: Local Cycle Infrastructure

As can be seen three are dedicated facilities on North Wall Quay and Guild Street and Seville Place in particular. Construction has also begun on Phase 2 of the Royal Canal Greenway which will link Sherriff Street Upper to North Strand Road while Phase 3 (North Strand Road to Phibsborough Road) is at tender stage and permission has been granted to Phase 4 (Phibsborough Road to Ashtown). Further improvements are also proposed as part of the National Transport Authority's *Greater Dublin Area Cycle Network Plan*.

Pedestrian

There are good quality, well-lit footpaths on the surrounding local road network.

Taking the above into consideration, the site is considered to be highly accessible by a wide variety of transportation options which will facilitate a modal shift away from private car travel. It is noted that a standalone

combined Quality Audit and Road Safety Audit has been prepared as part of this application and is submitted under separate cover.

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 discussed following.

CAR PARKING STANDARDS

Section 16.38 of the *Dublin City Council Development 2016 – 2022* considers in some detail the parking requirements for various types of development. Specifically, *Table 16.1* sets out the parking standards for car parking in conjunction with the zoning set out in Map J of the Development Plan, with the development site located in Zone 1.

Section 16.38.9 of the Development Plan the following in relation to residential car parking in apartments:

"*Car parking standards are maximum in nature and may be reduced in specific, mainly inner city locations where it is demonstrated that other modes of transport are sufficient for the needs of residents*"

The respective Development Plan maximum parking rates with respect to he proposed development subject to this application are set out as follows:

- Residential – 1 space per unit;
- Retail – 1 space per 350m^2 GFA.

The above is caveated with the following statement in the Development plan:

"*The car parking standards set out in Table 16.1 shall be generally regarded as the maximum parking provision"*

And:

"*A relaxation of maximum car parking standards will be considered for any site within parking Zone 1 (as illustrated on Map J) provided it is located in close proximity to quality public transport, and subject to requirements below. (There will also be no car storage requirement). This relaxation of the standards will apply to residential developments where the applicant sets out a clear case satisfactorily demonstrating a lack of parking need for the development based on factors including;*

- *Locational suitability and advantages.*
- *Ease of access to alternative and sustainable transport modes*
- *Availability of car sharing/car clubs and/or charging points for electric vehicles*"

It is also noted that the updated *Guidelines for Planning Authorities, Design Standards for New Apartments (March 2018)* 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 states:

"*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"

As noted previously, the site is highly accessible by rail, bus, bicycle and on foot. Thus, it is clear that the development falls into this category meaning it is appropriate to provide a significantly reduced quantum of car parking at the proposed development.

DCC & NTA DISCUSSIONS

In the course of pre-planning discussions with both the National Transport Authority (NTA) and DCC, the applicants were advised that the site could be considered as an appropriate candidate for zero parking provision.

RESIDENTIAL CAR OWNERSHIP & USAGE

The provision of residential car parking is considered to be a balance between meeting an appropriate level of demand and associated car travel 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 8* following.

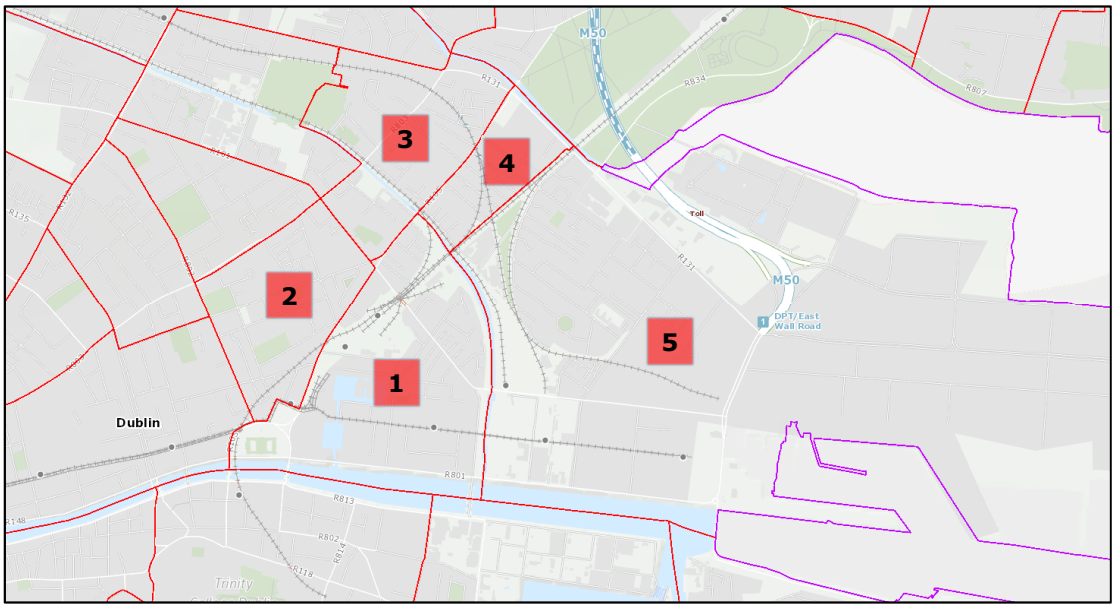


Figure 8: CSO Census 2016 Electoral Division Map (www.census.cso.ie)

The areas considered are defined as follows:

1. Electoral Division North Dock C;
2. Electoral Division Mountjoy A;
3. Electoral Division Ballybough A;
4. Electoral Division North Dock A;
5. Electoral Division North Dock B.

The data for households who do not own a car in each of these areas is presented in *Table 5* below.

Area	No. Apartments	No. Houses	No. Households with No Car	% Households with No Car	Equivalent Rate of Parking Required (space/unit)
1	1,087	507	1,008	63.24%	0.37
2	1,397	300	1,207	71.13%	0.29
3	594	922	820	54.09%	0.46
4	112	493	263	43.47%	0.57
5	1,706	1,328	1,355	44.66%	0.55

Table 5: CSO Census 2016 Car Ownership Data

As can be seen, the records show that the percentage of households that do not own a car and therefore have no demand for a car parking space

ranges from a rate of 43% – 71%. In particular, it is noted that areas with a higher portion of apartments also tend to have a notably lower level of car ownership based on the Census data as highlighted by Areas 1 & 2.

It should be stressed that these car ownership levels are without the benefit of any site specific measures such as those set out following nor specific restrictions on parking availability and so represent a worst case scenario.

It is also worth considering that, while many residents own a car, 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 6* following for workers.

Area	No. Workers	% Households with No Car	No. Workers that Drive	% Workers that Drive
1	2138	63.24%	225	10.52%
2	2368	71.13%	185	7.81%
3	1531	54.09%	327	21.36%
4	742	43.47%	180	24.26%
5	4373	44.66%	842	19.25%
Total	11152	55.09%	1759	15.77%

Table 6: CSO Census 2016 Car Usage Data – Workers

As can be seen, despite the level of car ownership noted previously, an average of just 16% of people in the locality currently drive for work. Again, using Areas 1 & 2 the best comparison to the development site, they have the lowest level of car usage at under 11%. In addition, it is noted that the areas with higher levels of car ownership also tend to have higher levels of car usage, further highlighting the correlation between these two factors.

Thus, based on the above, it is considered that a level of residential parking provision below the Development Plan maximum standard and in line with

the *Guidelines for Planning Authorities, Design Standards for New Apartments* is wholly appropriate in this instance.

CAR PARKING PROVISION

Taking into consideration the position expressed by DCC and the NTA combined with the extremely high level of public transport options available within a short walking distance, it is proposed to provide the following quantum and type of car parking to serve the proposed SHD development subject to this application:

- 58 no. car club spaces to serve the residents of the site.

No spaces will be assigned to individual tenants or individual apartments. No car parking is proposed to be allocated to the retail, community and amenity elements of the development as they are considered to be ancillary and to serve local needs and those residing/working at the development. This is in line with the Development Plan standard, which is a maximum, and takes consideration of the highly accessible nature of the site.

CAR CLUB

It must be stressed that restricting parking provision forms part of the overall sustainable travel strategy proposed for the development. As noted above, a key aspect of the parking strategy is the provision of dedicated car club parking spaces and vehicles to serve the residents at the site.

Again, this is in line with the *Guidelines for Planning Authorities, Design Standards for New Apartments (March 2018)* which states:

"*As well as showing that a site is sufficiently well located in relation to employment, amenities and services, it is important that access to a car sharing club or other non-car based modes of transport are available and/or can be provided to meet the needs of residents, whether as part of the proposed development, or otherwise. 'Car free' development is permissible*

and if developed, must be fully communicated as part of subsequent apartment sales and marketing processes"

As shown by the Census data, the vast majority of residents commuting in the local area do so by more sustainable means other than private car travel. When compared with the level of car ownership, this means that, for the majority of the time, many vehicles remain at home, unused. The rationale for this is generally the desire to maintain access to a car 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.

To date, this has been addressed through the mandatory provision of one or more car parking spaces per residential unit constructed. This has facilitated increased car ownership which invariably leads to increased travel by car. In addition, this strategy is obviously a very inefficient use of space within an already restricted location and has associated cost implications for an already undersupplied housing market.

With this in mind, an alternative, more efficient model is proposed for the proposed development which will see a car club set up on site and provide 58 no. car parking space to house car club vehicles for use by residents.

Car club services are very simple to use, with licensed and registered users able to book a vehicle through a convenient means such as a phone app. Fuel, tax, insurance, cleaning and maintenance costs are all included as part of the overall package which is a further incentive for users to switch from private car ownership as the overall cost of owning a car relative to the amount of use is not as attractive in many instances.

GoCar is an example of such an operator who are a well-established and experienced car club operator in Dublin. GoCar have been contacted as one potential operator to discuss the potential for a car club base to be set up on site and have confirmed that such a proposal is indeed viable.

GoCar have carried out a survey of their existing users to show the effectiveness of such a service, with the key results summarised as follows:

- 86% of GoCar use was for personal use with 14% for business use;
- 59% of GoCar users have used the service to replace a personal vehicle;
- 69% of users cite convenience as the biggest advantage of GoCar;
- 30% of users cite insurance costs as the biggest issue with owning a car while 26% cite maintenance and fuel costs as the biggest issue;
- Each GoCar takes 14 cars off Dublin streets;
- Top uses of GoCar are:
    - Day trips;
    - Family taxi;
    - Big shopping trips.
- The average GoCar is used for just 1 hour a day.

Thus, such a facility would have numerous benefits over the current parking provision model, including:

- Reducing the need for car ownership and thereby reducing the potential for unnecessary travel by car;
- Maintaining access to travel by car to satisfy infrequent, unique trips as outlined previously;
- Reducing the space required for car parking provision and associated cost which has an associated positive impact on unit affordability;
- Reducing costs associated with car use as long term tax, insurance and maintenance costs associated with car ownership (estimated at €10,849.92 by AA Ireland) are replaced with significantly lower, short term costs consolidated into one payment;
- Facilitating more environmentally friendly car travel as 10% of the GoCar fleet consists of electric vehicles, with this share set to increase in the future.

Car clubs also have the added bonus of not contributing to long term commuting by car. As the vehicles must be returned from the point of origin, i.e. the development site, the cost associated with using them on a daily

basis for commuting purposes means it would not be a realistic option. Where long term, non-commuting trips are required, alternatives such as car rental can be investigated.

Taking the above into consideration, it is felt that the implementation of a car club base of this scale at the development site provides a viable and attractive option which will facilitate the removal of private car ownership at the development, thereby reducing travel by car while also maintaining essential access to the use of a car for infrequent occasions where it is needed.

MOBILITY MANAGEMENT PLAN

Overall, it is proposed to put in place a Mobility Management Plan as the core transport strategy toll at the development site to both encourage and facilitate travel by more sustainable means, thereby further reducing the demand for travel by car and, by association, car parking.

This plan will be submitted to Dublin City Council within 6 months of occupation and upon completion of detailed travel surveys to be carried out by residents. The initial measures will then be developed and refined using this information to help facilitate a modal shift away from private car travel towards more sustainable means, further reducing the need for car ownership.

The plan will be a living document, continually updated in light of the experience gained through its operation in conjunction with residents and the Local Authority.

PARKING MANAGEMENT

A key aspect of the strategy will be the ongoing management of parking at the site. The car parking strategy will come into effect from initial contact with prospective tenants. It will be made very clear at the initial stage of communication that there is no private car parking available 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.

Access to the car park will be restricted to car club vehicles only and a barrier system will be in place at the car park entrance/exit to facilitate this with a fob/ licence plate recognition system. The Management Company will conduct regular reviews of all car parking usage to ensure only authorised car club vehicles are parking in the development.

In order to prevent unauthorised car parking taking place, a clamping system will be in place throughout the site whereby any cars parked in an unapproved location will be clamped and the owner required to pay a fine for release. All tenants will be advised of this system as part of the initial consultation with appropriate signage also provided.

SUMMARY

In summary and taking the aforementioned into consideration, it is felt that the development site is highly accessible through means other than private car given its central location. The level and type of parking provision proposed is considered to be appropriate to serve the development based on a factual study of existing car ownership and car usage locally while also taking into consideration the series of proposed measures including car club vehicles, implementation of a Mobility Management Plan, high level of cycle parking and appropriate management procedures.

6. POTENTIAL IMPACT OF DEVELOPMENT CONSTRUCTION

Relative to the operation stage, the construction period will be temporary in nature. Construction traffic is expected to consist of the following categories:

- Private vehicles owned and driven by site construction staff and by full time site supervisory staff and occasional professional supervisory staff i.e. design team members and supervisory staff from utility companies;
- Materials delivery and removal vehicles.

It is difficult to assess the exact quantum of traffic that will be generated during the construction period. However, the following points are noted with regard to construction traffic:

- In general, the construction day will begin and end outside of peak travel hours. As a result, the majority of workers travelling to and from the site will arrive before the a.m. peak hour and depart after the p.m. peak hour;
- Limited on-site parking will be provided for use by critical staff only with the remainder of staff encouraged to travel by the numerous public transport options serving the locality;
- 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.

Overall it is expected that the level of traffic generated by the construction works will be less than that assessed for the operational phase of the development. As a result, a detailed analysis of this stage has not been deemed necessary.

This stage of the development is considered in more detail in the *Construction Methodology & Phasing Management Plan* submitted as part of this application. This plan will be agreed with the Local Authority and revised as necessary prior to the commencement of construction, giving details on the following:

- Daily and weekly working hours;
- Agreed haul routes for incoming materials;
- Licensed hauliers to be used;
- Disposal sites;
- Travel arrangements for construction personnel;
- Appropriate on-site parking arrangements for construction personnel to prevent overspill parking on the local road network;
- Temporary construction entrances to be provided;
- Wheel wash facilities if required;
- Road cleaning and sweeping measures to be put in place if required;
- Temporary construction signage to be put in place and maintained;
- Any proposed traffic management measures such as temporary traffic lights and signage on any public roads.

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 (2018)* – 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 (2022)* – The performance of the local road network was then assessed for the masterplan Year of Opening. In order to show the true impact of the proposed development, both the Do Nothing and Do Something scenarios were analysed i.e. without and with the development in place;
- *Design Year (2037)* – The local road network was analysed for Design Year, again considering both the Do Nothing and Do Something scenarios, to assess its ability to cater for the additional traffic into the future.

The junction analysis was carried out using TRANSYT and the link capacities for the Year of Opening and the Design Year were assessed based on the same methodology outlined earlier in this report.

BASE YEAR

In order to establish which junctions require more detailed analysis using TRANSYT, 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*"

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 16: % Impact of Development on A.M. Peak Traffic;*
- *Diagram 17: % 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 less than 5% at the majority of junctions within the study area, with the exception of Junction 3. However in reviewing the CCTV footage from the surveys, it was noted that there is a small degree of interaction between Junction 1 and Junction 3, with isolated incidences of traffic extending back from the former to the latter.

Thus, based on the above, Junction 1 & 3, along with the proposed development entrance, Junction 7, have been deemed to require further detailed analysis while the impact on the remaining junction will be negligible.

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 and Do Something scenarios. The latter is established by adding the traffic estimated to be generated by the proposed development to the local network, as shown in the following:

- *Diagram 18: 2022 A.M. Peak Hour Flows – Do Something;*
- *Diagram 19: 2022 P.M. Peak Hour Flows – Do Something;*
- *Diagram 20: 2022 AADT – Do Something.*

Prior to the analysis of the individual junctions, the main links in the network have been assessed for the year of opening Do-Something scenario, with the results shown in *Table 8.*

Link	Width (m)	Link Capacity (veh/hr)	A.M. Peak (veh/hr)	RFC (%)	P.M. Peak (veh/hr)	RFC (%)
North Wall Quay	6.10	1,020	561	55.0	508	49.9
Guild Street	9.00	1,530	489	31.9	627	41.0
Sherriff Street Upper	6.75	1,110	312	28.1	528	47.6
Seville Place	6.10	900	758	84.2	695	77.3
Amiens Street	9.00	1,650	1,434	86.9	1,184	71.7
North Strand Road	9.00	1,650	1,259	76.3	1,060	64.2
Portland Row	9.00	1,530	917	59.9	697	45.6
Oriel Street	6.10	750	473	63.1	348	46.4

Table 8: 2022 Do Something Scenario Link RFC Values

As can be seen, the local links continue to operate with reserve capacity with RFC values remaining below a maximum of 86% despite the increased traffic levels.

Tables 9 – 13 following show the results of the Do Nothing and Do Something 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 signalised junctions have been modelled based on the signal plan currently in place;
- TRANSYT has been allowed to optimise the signal timings at signalised junctions for both the Do nothing and Do Something scenarios, thereby showing their optimal performance;
- The development entrance (Junction 7) has only been assessed for the Do Something scenario) as it is not present in the Do Nothing;
- 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*
Seville Place	36	7.7	63	12.1
Amiens Street	25	4.5	57	12.7
Portland Row	67	17.9	60	15.0
North Strand Road	81	22.0	58	12.8

Table 9: Junction 1 – 2022 Peak Hour Do Nothing Analysis Results

Approach	**A.M. Peak Hour**		**P.M. Peak Hour**	
	DOS	*Queue*	*DOS*	*Queue*
Seville Place	38	7.9	65	12.2
Amiens Street	25	4.4	58	12.8
Portland Row	71	19.4	60	15.3
North Strand Road	83	23.1	61	13.5

Table 10: Junction 1 – 2022 Peak Hour Do Something Analysis Results

The results show that the impact of the proposed development is relatively minor with increases in RFC limited to 1 – 3% while queue lengths experience a similar negligible impact.

Junction 3

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Seville Place (S)	32	4.8	34	3.7
Oriel Street Upper	6	0.2	24	1.6
Seville Place (N)	56	12.3	38	3.3
Oriel Street Lower	1	0.0	4	0.1

Table 11: Junction 3 – 2022 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Seville Place (S)	34	5.0	35	3.8
Oriel Street Upper	11	0.5	31	2.0
Seville Place (N)	68	14.4	41	10.7
Oriel Street Lower	1	0.0	4	0.0

Table 12: Junction 3 – 2022 Peak Hour Do Something Analysis Results

The results show that the junction continues to operate within capacity, with DOS values increasing by between 1 – 12%. Queue length impacts are similarly low with the exception of Seville Place (N) which see the largest increase of 7 vehicles.

Junction 7

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Oriel Street Upper (W)	5	0.0	16	0.0
Development Entrance	8	0.0	10	0.0
Oriel Street Upper (E)	25	0.0	12	0.0

Table 13: Junction 7 – 2022 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.

DESIGN YEAR

The Do Something traffic flows for the Design Year have been established using the same methodology outlined earlier and can be seen in the following:

- *Diagram 21: 2037 A.M. Peak Hour Flows – Do Something;*
- *Diagram 22: 2037 P.M. Peak Hour Flows – Do Something;*
- *Diagram 23: 2037 AADT – Do Something;*

Once again, prior to the analysis of the individual junctions, the main links in the network have been assessed for the Design Year Do Something scenario, with the results shown in *Table 14*.

Link	Width (m)	Link Capacity (veh/hr)	A.M. Peak (veh/hr)	RFC (%)	P.M. Peak (veh/hr)	RFC (%)
North Wall Quay	6.10	1,020	660	64.7	604	59.2
Guild Street	9.00	1,530	560	36.6	716	46.8
Sherriff Street Upper	6.75	1,110	358	32.2	605	54.5
Seville Place	6.10	900	863	95.8	796	88.5
Amiens Street	9.00	1,650	1,656	100	1,366	82.8
North Strand Road	9.00	1,650	1,449	87.8	1,223	74.1
Portland Row	9.00	1,530	1,051	68.7	798	52.2
Oriel Street	6.10	750	530	70.7	384	51.2

Table 14: 2037 Do Something Scenario Link RFC Values

The above shows that all links operate within capacity, with the majority of links experiencing RFC values below 90%. Amiens Street is shown to reach capacity at this time. However, it is noted that the assessment has taken conservative values for road widths to account for the existing bus lanes as well as additional growth factors for background traffic which may not materialise given the significant time period in question.

Tables 15 – 19 following show the results of the Do Nothing and Do Something analysis for the Design Year, thereby allowing for a direct

comparison of both scenarios to highlight the true impact of the proposed development. When considering the below results, the considerations outlined for the Year of Opening results continue to apply.

Junction 1

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Seville Place	50	11.4	65	9.9
Amiens Street	29	5.5	76	18.0
Portland Row	81	24.3	63	16.6
North Strand Road	92	30.8	78	18.5

Table 15: Junction 1 – 2037 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Seville Place	52	12.0	66	12.2
Amiens Street	29	5.5	78	18.4
Portland Row	84	26.2	64	17.0
North Strand Road	96	34.8	82	19.8

Table 16: Junction 1 – 2037 Peak Hour Do Something Analysis Results

The results show that the impact of the proposed development is relatively minor with increases in RFC limited to 1 – 3% while queue lengths experience a similar negligible impact.

Junction 3

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Seville Place (S)	37	5.9	39	4.8
Oriel Street Upper	7	0.3	31	2.3
Seville Place (N)	68	15.9	45	3.4
Oriel Street Lower	1	0.0	5	0.1

Table 17: Junction 3 – 2037 Peak Hour Do Nothing Analysis Results

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Seville Place (S)	40	6.2	40	5.0
Oriel Street Upper	13	0.6	41	3.6
Seville Place (N)	77	18.3	50	4.8
Oriel Street Lower	1	0.0	6	0.1

Table 18: Junction 3 – 2037 Peak Hour Do Something Analysis Results

The results show that the junction continues to operate within capacity, with DOS values increasing by between 1 – 12%. Queue length impacts are similarly low with the exception of Seville Place (N) which see the largest increase of 7 vehicles.

Junction 7

Approach	A.M. Peak Hour		P.M. Peak Hour	
	DOS	*Queue*	*DOS*	*Queue*
Oriel Street Upper (W)	6	0.0	18	0.0
Development Entrance	9	0.0	11	0.0
Oriel Street Upper (E)	29	0.1	13	0.0

Table 19: Junction 7 – 2037 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 while the existing network experiences high levels of RFC/DOS in some instances, the proposed development will have a negligible impact on the links and junctions in the local network. The proposed development entrance have been shown to operate well within normal capacity limits without the need for a right turn lane and will have no negative impact on the operation of the local road network.

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.

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 from a capacity point of view. As a result, none are proposed.

10. MONITORING

While it has been demonstrated that the proposed development has little impact on the operation of the local network, it is nevertheless recommended that the local area should be monitored in terms of transportation efficiencies into the future.

Patrick Raggett B.E., CEng MIEI, MCIHT
Chartered Civil Engineer
O'Connor Sutton Cronin & Associates

Appendix A: Traffic Survey Data

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	A to D - R105(N) to R101(S)							Veh. Total	A to C - R105(N) to R105(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	29	3	10	1	0	0	12	55	193	29	26	5	8	5	29	295
07:15	25	3	3	0	0	3	26	60	173	32	28	4	13	7	32	289
07:30	26	2	7	1	0	1	34	71	176	31	26	2	7	9	50	301
07:45	18	0	7	1	0	2	45	73	152	41	31	3	14	12	75	328
08:00	31	1	3	1	0	1	37	74	142	49	16	3	14	20	87	331
08:15	23	5	0	0	0	8	80	116	124	48	20	1	18	16	112	339
08:30	29	7	5	0	0	2	68	111	129	58	14	3	12	16	171	403
08:45	30	7	5	1	0	4	71	118	134	64	12	1	17	23	164	415
09:00	24	7	6	2	1	2	33	75	150	70	13	4	21	13	124	395
09:15	25	4	4	0	0	2	23	58	123	70	28	3	18	9	87	338
09:30	16	7	1	3	0	2	20	49	148	75	28	2	13	13	66	345
09:45	21	5	7	1	1	0	10	45	153	58	30	6	12	4	38	301
10:00	21	5	3	0	0	2	10	41	132	69	31	2	14	6	22	276
10:15	12	7	8	4	0	1	4	36	119	45	15	3	11	4	19	216
10:30	19	1	3	3	0	0	8	34	128	45	24	5	10	6	23	241
10:45	17	5	6	0	0	3	4	35	121	47	29	3	11	3	28	242
11:00	18	7	6	0	0	1	8	40	84	37	26	3	5	2	15	172
11:15	18	1	5	1	0	0	2	27	103	42	15	8	13	3	14	198
11:30	12	7	7	0	1	0	7	34	110	37	31	1	9	8	24	220
11:45	19	1	5	1	0	3	1	30	94	36	15	3	8	5	19	180
12:00	18	4	1	1	0	1	2	27	105	36	25	2	11	2	13	194
12:15	16	1	7	0	0	3	5	32	100	28	17	1	13	6	18	183
12:30	18	5	5	0	0	0	2	30	100	31	20	7	6	5	19	188
12:45	17	8	1	1	0	1	5	33	97	31	23	1	10	8	27	197
13:00	17	3	3	0	0	0	2	25	76	21	19	3	13	3	26	161
13:15	23	3	5	0	0	0	2	33	89	34	21	0	5	5	17	171
13:30	22	2	3	2	0	0	3	32	99	36	22	5	19	6	14	201
13:45	17	5	3	0	1	1	5	32	97	32	18	0	12	1	16	176
14:00	19	3	2	0	0	1	10	35	106	30	16	3	16	5	12	188
14:15	20	2	4	1	0	0	2	29	101	40	15	1	7	5	17	186
14:30	24	2	1	1	0	0	4	32	71	37	15	2	11	6	13	155
14:45	19	1	4	1	2	0	1	28	75	29	11	2	9	2	13	141
15:00	13	7	2	0	0	1	2	25	81	30	12	3	14	4	9	153
15:15	10	8	1	0	0	0	2	21	106	52	13	4	6	5	18	204
15:30	18	5	3	0	0	3	3	32	114	27	9	2	15	3	11	181
15:45	14	5	3	0	0	0	6	28	95	37	20	0	15	5	14	186
16:00	17	3	2	0	0	0	3	25	94	35	15	2	8	4	10	168
16:15	23	4	3	0	1	1	3	35	114	26	19	2	14	2	28	205
16:30	19	2	4	0	0	1	3	29	98	35	20	0	12	4	12	181
16:45	19	6	5	0	0	1	5	36	118	30	17	1	10	1	24	201
17:00	12	3	2	0	1	1	3	22	110	28	11	0	15	3	37	204
17:15	20	4	0	0	0	2	8	34	128	33	8	0	10	5	33	217
17:30	14	8	1	0	0	1	3	27	85	42	6	2	12	4	45	196
17:45	18	2	5	1	0	1	3	30	109	29	8	2	11	4	35	198
18:00	17	3	1	0	0	1	7	29	108	41	10	1	10	2	29	201
18:15	14	2	0	0	0	0	3	19	112	53	12	0	13	3	35	228
18:30	12	1	2	0	0	1	4	20	120	61	4	2	15	0	27	229
18:45	11	1	3	0	0	2	1	18	125	55	10	2	10	1	24	227
Total	914	188	177	28	8	60	605	1980	5521	1982	874	115	570	288	1795	11145

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	A to B - R105(N) to R101(N)							Veh. Total	B to A - R101(N) to R105(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	0	0	0	0	0	0	0	0	5	1	2	3	0	0	1	12
07:15	0	0	0	0	0	0	0	0	5	1	3	2	0	0	0	11
07:30	0	0	0	0	0	0	1	1	4	0	1	0	0	1	4	10
07:45	0	0	0	0	0	0	0	0	7	3	3	0	0	0	4	17
08:00	0	0	0	0	0	0	0	0	3	3	5	4	0	0	3	18
08:15	0	0	0	0	0	0	0	0	6	2	3	1	0	0	6	18
08:30	0	0	0	0	0	0	0	0	8	3	3	1	0	0	3	18
08:45	0	0	0	0	0	0	0	0	14	4	0	0	0	0	1	19
09:00	0	0	0	0	0	0	0	0	10	3	3	4	0	0	3	23
09:15	0	0	0	0	0	0	0	0	14	6	4	2	0	1	2	29
09:30	0	0	0	0	0	0	0	0	11	4	6	3	0	1	0	25
09:45	0	0	0	0	0	0	0	0	12	1	3	2	0	0	2	20
10:00	0	0	0	0	0	0	0	0	18	1	7	2	0	1	0	29
10:15	0	0	0	1	0	0	0	1	14	0	3	3	0	3	0	23
10:30	0	0	0	0	0	0	0	0	12	3	3	2	0	0	2	22
10:45	0	0	0	0	0	0	1	1	22	4	7	0	1	0	0	34
11:00	0	0	0	0	0	0	0	0	15	1	9	3	0	0	0	28
11:15	0	0	0	0	0	0	0	0	33	4	14	4	1	0	2	58
11:30	0	0	0	0	0	0	0	0	24	4	2	3	0	0	3	36
11:45	0	0	0	0	0	0	0	0	16	3	5	2	0	0	3	29
12:00	0	0	0	0	0	0	0	0	31	4	2	1	0	1	1	40
12:15	0	0	0	0	0	0	0	0	23	6	4	4	1	1	4	43
12:30	0	0	0	0	0	0	0	0	11	3	5	2	0	0	7	28
12:45	0	0	0	0	0	0	0	0	27	4	3	4	0	1	3	42
13:00	0	0	0	0	0	0	0	0	26	2	6	1	0	2	2	39
13:15	0	0	0	0	0	0	0	0	18	6	9	2	0	0	2	37
13:30	0	0	0	0	0	0	0	0	25	10	2	4	0	2	3	46
13:45	0	0	0	0	0	0	0	0	23	7	8	0	0	1	5	44
14:00	0	0	0	0	0	0	1	1	32	7	7	2	0	1	3	52
14:15	0	0	0	0	1	0	0	1	22	3	3	0	0	0	4	32
14:30	0	0	0	0	0	0	0	0	36	4	4	1	0	1	3	49
14:45	0	0	0	0	0	0	0	0	35	4	8	1	0	2	3	53
15:00	0	0	0	0	0	0	0	0	24	1	6	1	1	2	2	37
15:15	0	0	0	0	0	0	0	0	28	4	7	0	0	1	3	43
15:30	0	0	0	0	0	0	0	0	44	1	7	1	0	2	4	59
15:45	0	0	0	0	0	0	0	0	37	5	7	0	3	0	5	57
16:00	0	0	0	0	0	0	0	0	43	3	5	0	0	1	2	54
16:15	0	0	0	0	0	0	0	0	33	4	6	0	0	2	3	48
16:30	0	0	0	0	0	0	0	0	38	2	9	0	0	3	7	59
16:45	0	0	0	0	0	0	0	0	40	1	7	0	1	2	11	62
17:00	0	0	0	0	0	0	0	0	39	3	5	0	1	3	9	60
17:15	0	0	0	0	0	0	0	0	51	5	7	0	0	3	10	76
17:30	0	0	0	0	0	0	0	0	41	3	4	0	0	6	6	60
17:45	0	0	0	0	0	0	1	1	36	3	3	1	0	1	10	54
18:00	0	0	0	0	0	0	0	0	32	1	1	0	2	2	9	47
18:15	0	0	0	0	0	0	0	0	25	2	1	1	1	3	11	44
18:30	0	0	0	0	0	0	0	0	22	3	2	0	0	4	16	47
18:45	0	0	0	0	0	0	0	0	21	1	3	0	0	1	9	35
25.75	0	0	0	1	1	0	4	6	1116	153	227	67	12	55	196	1826

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	B to D - R101(N) to R101(S)							Veh. Total	B to C - R101(N) to R105(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	99	3	28	4	0	1	32	167	55	2	20	1	1	0	3	82
07:15	83	5	30	5	0	3	40	166	56	5	10	1	0	0	6	78
07:30	100	2	19	4	0	7	48	180	52	2	6	0	1	0	5	66
07:45	103	2	19	2	0	4	57	187	66	2	5	0	1	2	6	82
08:00	81	3	9	1	0	4	56	154	55	3	7	0	0	1	2	68
08:15	97	10	12	7	0	10	83	219	48	2	8	0	1	1	5	65
08:30	95	2	11	1	0	12	105	226	44	3	2	0	2	3	11	65
08:45	94	5	9	1	0	11	116	236	45	5	5	2	0	4	12	73
09:00	86	3	15	4	0	7	78	193	47	11	7	0	1	2	4	72
09:15	65	6	11	3	0	4	48	137	37	13	10	1	0	1	8	70
09:30	58	5	15	3	0	5	26	112	38	14	12	3	0	2	7	76
09:45	55	12	14	3	1	6	21	112	34	11	3	0	0	0	5	53
10:00	45	11	23	1	0	1	8	89	31	13	5	3	1	2	3	58
10:15	58	14	18	11	0	3	7	111	20	15	11	1	0	0	1	48
10:30	42	10	22	5	1	3	4	87	19	18	10	4	0	1	2	54
10:45	44	10	20	7	0	2	6	89	31	11	11	0	1	1	4	59
11:00	48	9	15	6	1	0	5	84	20	7	6	0	2	0	2	37
11:15	43	7	17	4	0	1	9	81	21	13	8	1	1	2	1	47
11:30	56	6	19	6	1	3	7	98	19	13	8	2	0	0	0	42
11:45	50	9	22	6	2	2	4	95	18	9	8	2	1	2	1	41
12:00	60	8	14	2	0	1	8	93	15	8	5	0	0	0	0	28
12:15	47	6	15	5	0	2	7	82	20	16	5	1	2	0	1	45
12:30	62	17	22	4	0	1	5	111	11	9	8	3	1	2	1	35
12:45	47	7	9	1	2	2	6	74	15	10	7	0	0	1	0	33
13:00	51	14	13	3	1	2	2	86	28	23	8	3	0	0	3	65
13:15	54	7	15	3	0	1	4	84	17	5	6	2	0	0	0	30
13:30	46	12	8	3	2	1	3	75	16	12	8	2	0	0	1	39
13:45	52	15	14	6	2	2	8	99	32	7	11	1	3	0	2	56
14:00	52	12	21	4	0	2	5	96	16	10	3	2	0	2	2	35
14:15	54	9	14	2	3	2	5	89	24	14	4	2	0	0	0	44
14:30	44	8	12	3	0	0	7	74	13	12	10	1	2	0	0	38
14:45	53	15	8	5	1	1	12	95	28	8	4	2	1	2	0	45
15:00	38	9	17	4	1	1	4	74	14	13	6	0	2	1	0	36
15:15	52	8	7	5	2	1	11	86	18	4	5	3	1	2	2	35
15:30	59	13	9	1	1	1	9	93	24	7	3	0	1	1	5	41
15:45	44	15	11	2	0	2	9	83	17	15	5	1	0	0	1	39
16:00	52	12	10	3	1	1	5	84	16	3	3	0	0	1	0	23
16:15	59	8	6	0	0	4	9	86	11	3	2	1	1	1	0	19
16:30	75	11	13	2	1	3	15	120	11	11	4	0	0	0	2	28
16:45	65	10	8	1	1	2	14	101	14	7	3	0	1	2	0	27
17:00	55	9	15	1	3	3	15	101	15	7	2	0	1	0	4	29
17:15	72	7	7	1	0	2	13	102	9	6	2	0	3	1	1	22
17:30	51	8	10	0	2	4	18	93	6	8	3	0	1	0	0	18
17:45	77	13	5	2	0	2	9	108	16	4	0	0	1	2	0	23
18:00	51	13	4	2	1	1	12	84	8	7	3	0	1	3	4	26
18:15	92	13	9	1	1	1	0	117	10	3	0	1	3	0	2	19
18:30	57	15	6	0	1	3	5	87	9	8	2	0	2	1	3	25
18:45	55	13	4	0	0	0	7	79	7	5	1	0	0	1	1	15
25.75	2978	441	654	150	32	137	987	5379	1196	417	285	46	40	47	123	2154

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	C to B - R105(S) to R101(N)							Veh. Total	C to A - R105(S) to R105(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	3	3	1	0	0	0	0	7	46	13	12	0	9	0	2	82
07:15	5	2	0	0	0	0	1	8	37	8	5	2	10	1	13	76
07:30	6	2	1	0	0	0	0	9	56	18	5	4	9	2	15	109
07:45	6	0	1	0	0	0	1	8	42	11	8	2	11	0	19	93
08:00	5	0	2	0	0	0	1	8	62	17	5	1	12	1	26	124
08:15	10	3	1	0	0	0	0	14	48	13	6	1	9	3	20	100
08:30	6	1	1	0	0	0	0	8	52	25	5	2	15	5	21	125
08:45	5	3	0	0	0	1	1	10	27	15	3	0	12	1	22	80
09:00	5	1	1	1	0	0	2	10	40	20	7	2	11	0	11	91
09:15	5	3	0	1	1	0	1	11	38	22	7	0	13	1	11	92
09:30	2	6	0	0	0	0	1	9	31	16	4	0	19	3	15	88
09:45	1	2	0	0	0	0	2	5	34	23	4	0	13	2	7	83
10:00	7	5	6	0	0	0	0	18	44	30	12	2	11	1	10	110
10:15	9	7	0	0	1	0	0	17	36	18	6	3	19	3	4	89
10:30	6	4	0	0	0	0	1	11	44	37	15	1	9	4	4	114
10:45	4	3	2	0	0	0	0	9	50	24	11	4	10	3	1	103
11:00	8	6	1	0	0	1	0	16	48	36	11	6	8	2	6	117
11:15	4	6	1	0	0	0	0	11	38	25	18	1	10	4	6	102
11:30	3	2	3	0	0	2	3	13	48	19	12	0	9	2	4	94
11:45	9	4	0	1	0	1	2	17	51	30	16	1	9	4	8	119
12:00	10	7	3	0	0	3	1	24	51	29	13	1	13	4	11	122
12:15	9	4	1	1	0	0	0	15	58	26	17	1	15	3	14	134
12:30	3	3	7	0	0	2	1	16	62	31	15	1	9	0	19	137
12:45	4	4	0	1	1	0	0	10	78	33	9	2	8	2	13	145
13:00	8	1	2	1	1	0	0	13	80	13	9	3	10	6	21	142
13:15	7	3	5	0	0	0	0	15	65	29	12	0	12	6	15	139
13:30	6	0	1	0	0	0	1	8	85	23	15	3	5	2	19	152
13:45	2	3	2	1	0	1	1	10	84	26	12	3	14	2	13	154
14:00	9	4	1	0	0	0	3	17	85	18	14	1	9	3	17	147
14:15	11	7	3	1	0	0	2	24	92	18	11	1	10	2	19	153
14:30	10	2	5	2	1	0	0	20	64	21	16	2	11	5	14	133
14:45	7	5	1	1	0	0	0	14	86	26	19	3	8	5	27	174
15:00	9	0	2	1	0	0	0	12	103	34	22	1	10	3	19	192
15:15	7	5	2	0	1	4	0	19	108	31	25	1	16	4	18	203
15:30	9	2	2	0	0	0	1	14	114	26	23	1	6	2	16	188
15:45	9	4	1	0	0	0	0	14	126	21	27	0	13	7	30	224
16:00	10	2	3	0	0	0	2	17	134	24	24	1	8	6	28	225
16:15	7	5	3	0	0	1	3	19	151	27	21	1	12	12	42	266
16:30	10	1	2	0	0	1	2	16	111	18	19	1	9	8	38	204
16:45	7	1	2	0	1	0	5	16	159	30	18	1	12	14	56	290
17:00	14	0	1	0	1	1	2	19	120	21	20	1	12	6	59	239
17:15	13	4	1	0	1	1	8	28	100	34	9	1	14	6	103	267
17:30	8	1	0	0	0	1	2	12	130	36	19	0	12	11	108	316
17:45	7	1	0	0	0	2	2	12	141	32	15	1	12	8	124	333
18:00	8	5	2	0	0	1	3	19	126	38	12	4	9	13	99	301
18:15	10	3	0	0	0	0	5	18	156	45	15	2	10	10	105	343
18:30	9	2	1	0	0	1	4	17	161	49	12	1	13	5	61	302
18:45	5	1	1	0	0	2	1	10	145	29	7	1	15	3	50	250
25.75	337	143	75	12	9	26	65	667	3847	1208	622	71	535	200	1383	7866

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	C to D - R105(S) to R101(S)							Veh. Total	D to C - R101(S) to R105(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	0	0	0	0	0	0	0	0	7	1	5	1	1	0	0	15
07:15	0	0	0	0	0	0	0	0	11	2	1	1	0	0	0	15
07:30	0	0	0	0	0	0	0	0	8	2	3	1	0	0	0	14
07:45	0	0	0	0	0	0	0	0	6	1	5	0	1	0	0	13
08:00	0	0	0	0	0	0	0	0	4	1	2	0	3	0	1	11
08:15	0	0	0	0	0	0	0	0	5	2	2	2	1	0	0	12
08:30	0	0	0	0	0	0	0	0	8	0	0	0	5	0	0	13
08:45	0	0	0	0	0	0	0	0	10	7	1	1	0	0	0	19
09:00	0	0	0	0	0	0	0	0	9	0	0	1	0	1	0	11
09:15	0	0	0	0	0	0	0	0	16	2	1	1	1	0	0	21
09:30	0	0	0	0	0	0	0	0	6	1	4	1	0	1	1	14
09:45	0	0	0	0	0	0	0	0	10	2	3	0	2	1	2	20
10:00	0	0	0	0	0	0	0	0	3	2	6	2	0	0	2	15
10:15	0	0	0	0	0	0	0	0	7	2	4	0	0	0	0	13
10:30	0	0	0	0	0	0	0	0	16	3	4	1	0	1	1	26
10:45	0	0	0	0	0	0	0	0	4	1	6	1	1	1	0	14
11:00	0	0	0	0	0	0	0	0	10	5	6	0	1	0	0	22
11:15	0	0	0	0	0	0	0	0	5	5	8	1	0	0	1	20
11:30	0	0	0	0	0	0	0	0	6	2	2	0	1	0	0	11
11:45	0	0	0	0	0	0	0	0	3	4	6	1	0	0	1	15
12:00	0	0	0	0	0	0	0	0	9	2	1	1	1	0	1	15
12:15	0	0	0	0	0	0	0	0	9	3	1	0	0	0	1	14
12:30	0	0	0	0	0	0	0	0	9	2	7	1	0	0	1	20
12:45	0	0	0	0	0	0	0	0	9	0	5	2	2	0	1	19
13:00	0	0	0	0	0	0	0	0	14	1	4	1	2	0	2	24
13:15	0	0	0	0	0	0	0	0	12	3	4	0	0	0	0	19
13:30	0	0	0	0	0	0	0	0	8	1	7	0	0	1	2	19
13:45	0	0	0	0	0	0	0	0	6	2	7	0	1	0	0	16
14:00	0	0	0	0	0	0	0	0	6	0	5	0	0	0	0	11
14:15	0	0	0	0	0	0	0	0	8	1	0	1	0	0	3	13
14:30	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10
14:45	0	0	0	0	0	0	0	0	5	1	3	0	1	1	0	11
15:00	0	0	0	0	0	0	1	1	8	3	3	0	0	0	1	15
15:15	0	0	0	0	0	0	0	0	10	2	4	0	0	0	1	17
15:30	0	0	0	0	0	0	0	0	5	1	3	0	0	1	2	12
15:45	0	0	0	0	0	0	0	0	7	0	2	0	1	1	1	12
16:00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
16:15	1	0	0	0	0	0	0	1	7	1	5	0	5	0	1	19
16:30	0	0	0	0	0	0	0	0	10	3	0	0	3	0	0	16
16:45	0	0	0	0	0	0	0	0	8	0	1	0	2	0	0	11
17:00	0	0	0	0	0	0	0	0	11	0	0	1	4	0	1	17
17:15	0	0	0	0	0	0	0	0	8	0	1	0	3	2	1	15
17:30	0	0	0	0	0	0	0	0	12	1	1	0	0	0	2	16
17:45	0	0	0	0	0	0	0	0	9	0	0	1	0	0	2	12
18:00	0	0	0	0	0	0	1	1	6	0	2	0	0	1	2	11
18:15	0	0	0	0	0	0	0	0	11	0	0	0	1	0	1	13
18:30	0	0	0	0	0	0	0	0	8	1	1	0	0	0	0	10
18:45	0	0	0	0	0	0	0	0	6	0	1	0	0	0	0	7
25.75	1	0	0	0	0	0	2	3	391	75	137	23	43	12	35	716

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	D to B - R101(S) to R101(N)							Veh. Total	D to A - R101(S) to R105(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	42	7	7	2	2	2	4	66	0	0	0	0	0	0	0	0
07:15	67	11	11	5	0	0	3	97	0	0	0	0	0	0	1	1
07:30	49	7	9	2	1	1	6	75	0	0	0	0	0	0	0	0
07:45	41	10	7	5	1	3	10	77	0	0	0	0	0	0	3	3
08:00	37	12	11	0	6	1	5	72	0	0	0	0	0	0	2	2
08:15	49	14	7	5	1	1	9	86	0	0	0	0	0	0	0	0
08:30	35	4	6	3	2	0	13	63	0	0	0	0	0	0	0	0
08:45	50	13	9	3	2	3	15	95	0	0	0	0	0	0	0	0
09:00	36	11	9	7	1	3	9	76	0	0	0	0	0	0	0	0
09:15	46	13	7	2	2	1	4	75	0	0	0	0	0	0	1	1
09:30	27	22	8	5	1	2	4	69	0	0	0	0	0	0	0	0
09:45	44	14	10	5	0	2	2	77	0	0	0	0	0	0	3	3
10:00	39	17	6	6	0	1	4	73	0	0	0	0	0	0	0	0
10:15	48	18	9	5	1	1	3	85	0	0	0	0	0	0	1	1
10:30	45	20	17	2	0	0	2	86	0	0	0	0	0	0	0	0
10:45	39	18	12	5	0	0	3	77	0	0	0	0	0	0	0	0
11:00	45	22	9	6	1	1	6	90	0	0	0	0	0	0	1	1
11:15	34	15	11	7	1	1	4	73	0	0	0	0	0	0	0	0
11:30	58	13	13	5	1	1	11	102	0	0	0	0	0	0	2	2
11:45	49	13	12	2	1	1	5	83	0	0	0	0	0	0	0	0
12:00	50	16	15	5	0	3	1	90	0	0	0	0	0	0	0	0
12:15	54	13	21	2	2	0	2	94	0	0	0	0	0	0	0	0
12:30	55	17	17	6	1	3	3	102	0	0	0	0	0	0	0	0
12:45	50	16	8	4	0	3	3	84	0	0	0	0	0	0	2	2
13:00	53	13	18	5	0	2	6	97	0	0	0	0	0	0	1	1
13:15	63	7	10	4	0	1	6	91	0	0	0	0	0	0	3	3
13:30	80	15	12	4	1	2	10	124	0	0	0	0	0	0	2	2
13:45	60	17	9	4	0	2	9	101	0	0	0	0	0	0	0	0
14:00	54	12	19	2	2	2	12	103	0	0	0	0	0	1	1	2
14:15	55	15	19	7	0	3	15	114	0	0	0	0	0	0	4	4
14:30	67	14	17	3	3	4	7	115	0	0	0	0	0	0	2	2
14:45	60	12	20	0	5	6	7	110	0	0	0	0	0	0	3	3
15:00	58	11	13	0	1	4	16	103	0	0	0	0	0	0	2	2
15:15	58	13	19	4	1	0	6	101	0	0	0	0	0	0	1	1
15:30	56	10	16	1	2	1	15	101	0	0	0	0	0	0	2	2
15:45	69	6	9	2	3	5	22	116	0	0	0	0	0	0	0	0
16:00	61	4	17	3	1	2	29	117	0	0	0	0	0	0	1	1
16:15	93	9	23	2	4	6	38	175	0	0	0	0	0	0	5	5
16:30	107	7	22	0	1	6	38	181	0	0	0	0	0	0	7	7
16:45	111	7	11	2	2	6	53	192	0	0	0	0	0	0	7	7
17:00	105	14	15	0	2	9	76	221	0	0	0	0	0	0	6	6
17:15	107	3	7	1	1	5	111	235	0	0	0	0	0	0	8	8
17:30	132	10	14	2	0	21	113	292	0	0	0	0	0	0	12	12
17:45	111	7	11	0	1	7	104	241	0	0	0	0	0	0	17	17
18:00	106	10	10	2	1	6	98	233	0	0	0	0	0	0	12	12
18:15	110	5	10	3	1	5	101	235	0	0	0	0	0	0	15	15
18:30	92	13	11	0	0	4	55	175	0	0	0	0	0	0	16	16
18:45	90	10	7	0	0	4	62	173	0	0	0	0	0	0	10	10
25.75	3047	580	590	150	59	147	1140	5713	0	0	0	0	0	1	153	154

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	To Arm A - R105(N)							Veh. Total	From Arm A - R105(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	51	14	14	3	9	0	3	94	222	32	36	6	8	5	41	350
07:15	42	9	8	4	10	1	14	88	198	35	31	4	13	10	58	349
07:30	60	18	6	4	9	3	19	119	202	33	33	3	7	10	85	373
07:45	49	14	11	2	11	0	26	113	170	41	38	4	14	14	120	401
08:00	65	20	10	5	12	1	31	144	173	50	19	4	14	21	124	405
08:15	54	15	9	2	9	3	26	118	147	53	20	1	18	24	192	455
08:30	60	28	8	3	15	5	24	143	158	65	19	3	12	18	239	514
08:45	41	19	3	0	12	1	23	99	164	71	17	2	17	27	235	533
09:00	50	23	10	6	11	0	14	114	174	77	19	6	22	15	157	470
09:15	52	28	11	2	13	2	14	122	148	74	32	3	18	11	110	396
09:30	42	20	10	3	19	4	15	113	164	82	29	5	13	15	86	394
09:45	46	24	7	2	13	2	12	106	174	63	37	7	13	4	48	346
10:00	62	31	19	4	11	2	10	139	153	74	34	2	14	8	32	317
10:15	50	18	9	6	19	6	5	113	131	52	23	8	11	5	23	253
10:30	56	40	18	3	9	4	6	136	147	46	27	8	10	6	31	275
10:45	72	28	18	4	11	3	1	137	138	52	35	3	11	6	33	278
11:00	63	37	20	9	8	2	7	146	102	44	32	3	5	3	23	212
11:15	71	29	32	5	11	4	8	160	121	43	20	9	13	3	16	225
11:30	72	23	14	3	9	2	9	132	122	44	38	1	10	8	31	254
11:45	67	33	21	3	9	4	11	148	113	37	20	4	8	8	20	210
12:00	82	33	15	2	13	5	12	162	123	40	26	3	11	3	15	221
12:15	81	32	21	5	16	4	18	177	116	29	24	1	13	9	23	215
12:30	73	34	20	3	9	0	26	165	118	36	25	7	6	5	21	218
12:45	105	37	12	6	8	3	18	189	114	39	24	2	10	9	32	230
13:00	106	15	15	4	10	8	24	182	93	24	22	3	13	3	28	186
13:15	83	35	21	2	12	6	20	179	112	37	26	0	5	5	19	204
13:30	110	33	17	7	5	4	24	200	121	38	25	7	19	6	17	233
13:45	107	33	20	3	14	3	18	198	114	37	21	0	13	2	21	208
14:00	117	25	21	3	9	5	21	201	125	33	18	3	16	6	23	224
14:15	114	21	14	1	10	2	27	189	121	42	19	2	8	5	19	216
14:30	100	25	20	3	11	6	19	184	95	39	16	3	11	6	17	187
14:45	121	30	27	4	8	7	33	230	94	30	15	3	11	2	14	169
15:00	127	35	28	2	11	5	23	231	94	37	14	3	14	5	11	178
15:15	136	35	32	1	16	5	22	247	116	60	14	4	6	5	20	225
15:30	158	27	30	2	6	4	22	249	132	32	12	2	15	6	14	213
15:45	163	26	34	0	16	7	35	281	109	42	23	0	15	5	20	214
16:00	177	27	29	1	8	7	31	280	111	38	17	2	8	4	13	193
16:15	184	31	27	1	12	14	50	319	137	30	22	2	15	3	31	240
16:30	149	20	28	1	9	11	52	270	117	37	24	0	12	5	15	210
16:45	199	31	25	1	13	16	74	359	137	36	22	1	10	2	29	237
17:00	159	24	25	1	13	9	74	305	122	31	13	0	16	4	40	226
17:15	151	39	16	1	14	9	121	351	148	37	8	0	10	7	41	251
17:30	171	39	23	0	12	17	126	388	99	50	7	2	12	5	48	223
17:45	177	35	18	2	12	9	151	404	127	31	13	3	11	5	39	229
18:00	158	39	13	4	11	15	120	360	125	44	11	1	10	3	36	230
18:15	181	47	16	3	11	13	131	402	126	55	12	0	13	3	38	247
18:30	183	52	14	1	13	9	93	365	132	62	6	2	15	1	31	249
18:45	166	30	10	1	15	4	69	295	136	56	13	2	10	3	25	245
25.75	4963	1361	849	138	547	256	1732	9846	6435	2170	1051	144	579	348	2404	13131

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	To Arm B - R101(N)							Veh. Total	From Arm B - R101(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	45	10	8	2	2	2	4	73	159	6	50	8	1	1	36	261
07:15	72	13	11	5	0	0	4	105	144	11	43	8	0	3	46	255
07:30	55	9	10	2	1	1	7	85	156	4	26	4	1	8	57	256
07:45	47	10	8	5	1	3	11	85	176	7	27	2	1	6	67	286
08:00	42	12	13	0	6	1	6	80	139	9	21	5	0	5	61	240
08:15	59	17	8	5	1	1	9	100	151	14	23	8	1	11	94	302
08:30	41	5	7	3	2	0	13	71	147	8	16	2	2	15	119	309
08:45	55	16	9	3	2	4	16	105	153	14	14	3	0	15	129	328
09:00	41	12	10	8	1	3	11	86	143	17	25	8	1	9	85	288
09:15	51	16	7	3	3	1	5	86	116	25	25	6	0	6	58	236
09:30	29	28	8	5	1	2	5	78	107	23	33	9	0	8	33	213
09:45	45	16	10	5	0	2	4	82	101	24	20	5	1	6	28	185
10:00	46	22	12	6	0	1	4	91	94	25	35	6	1	4	11	176
10:15	57	25	9	6	2	1	3	103	92	29	32	15	0	6	8	182
10:30	51	24	17	2	0	0	3	97	73	31	35	11	1	4	8	163
10:45	43	21	14	5	0	0	4	87	97	25	38	7	2	3	10	182
11:00	53	28	10	6	1	2	6	106	83	17	30	9	3	0	7	149
11:15	38	21	12	7	1	1	4	84	97	24	39	9	2	3	12	186
11:30	61	15	16	5	1	3	14	115	99	23	29	11	1	3	10	176
11:45	58	17	12	3	1	2	7	100	84	21	35	10	3	4	8	165
12:00	60	23	18	5	0	6	2	114	106	20	21	3	0	2	9	161
12:15	63	17	22	3	2	0	2	109	90	28	24	10	3	3	12	170
12:30	58	20	24	6	1	5	4	118	84	29	35	9	1	3	13	174
12:45	54	20	8	5	1	3	3	94	89	21	19	5	2	4	9	149
13:00	61	14	20	6	1	2	6	110	105	39	27	7	1	4	7	190
13:15	70	10	15	4	0	1	6	106	89	18	30	7	0	1	6	151
13:30	86	15	13	4	1	2	11	132	87	34	18	9	2	3	7	160
13:45	62	20	11	5	0	3	10	111	107	29	33	7	5	3	15	199
14:00	63	16	20	2	2	2	16	121	100	29	31	8	0	5	10	183
14:15	66	22	22	8	1	3	17	139	100	26	21	4	3	2	9	165
14:30	77	16	22	5	4	4	7	135	93	24	26	5	2	1	10	161
14:45	67	17	21	1	5	6	7	124	116	27	20	8	2	5	15	193
15:00	67	11	15	1	1	4	16	115	76	23	29	5	4	4	6	147
15:15	65	18	21	4	2	4	6	120	98	16	19	8	3	4	16	164
15:30	65	12	18	1	2	1	16	115	127	21	19	2	2	4	18	193
15:45	78	10	10	2	3	5	22	130	98	35	23	3	3	2	15	179
16:00	71	6	20	3	1	2	31	134	111	18	18	3	1	3	7	161
16:15	100	14	26	2	4	7	41	194	103	15	14	1	1	7	12	153
16:30	117	8	24	0	1	7	40	197	124	24	26	2	1	6	24	207
16:45	118	8	13	2	3	6	58	208	119	18	18	1	3	6	25	190
17:00	119	14	16	0	3	10	78	240	109	19	22	1	5	6	28	190
17:15	120	7	8	1	2	6	119	263	132	18	16	1	3	6	24	200
17:30	140	11	14	2	0	22	115	304	98	19	17	0	3	10	24	171
17:45	118	8	11	0	1	9	107	254	129	20	8	3	1	5	19	185
18:00	114	15	12	2	1	7	101	252	91	21	8	2	4	6	25	157
18:15	120	8	10	3	1	5	106	253	127	18	10	3	5	4	13	180
18:30	101	15	12	0	0	5	59	192	88	26	10	0	3	8	24	159
18:45	95	11	8	0	0	6	63	183	83	19	8	0	0	2	17	129
25.75	3384	723	665	163	69	173	1209	6386	5290	1011	1166	263	84	239	1306	9359

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	To Arm C - R105(S)							Veh. Total	From Arm C - R105(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	255	32	51	7	10	5	32	392	49	16	13	0	9	0	2	89
07:15	240	39	39	6	13	7	38	382	42	10	5	2	10	1	14	84
07:30	236	35	35	3	8	9	55	381	62	20	6	4	9	2	15	118
07:45	224	44	41	3	16	14	81	423	48	11	9	2	11	0	20	101
08:00	201	53	25	3	17	21	90	410	67	17	7	1	12	1	27	132
08:15	177	52	30	3	20	17	117	416	58	16	7	1	9	3	20	114
08:30	181	61	16	3	19	19	182	481	58	26	6	2	15	5	21	133
08:45	189	76	18	4	17	27	176	507	32	18	3	0	12	2	23	90
09:00	206	81	20	5	22	16	128	478	45	21	8	3	11	0	13	101
09:15	176	85	39	5	19	10	95	429	43	25	7	1	14	1	12	103
09:30	192	90	44	6	13	16	74	435	33	22	4	0	19	3	16	97
09:45	197	71	36	6	14	5	45	374	35	25	4	0	13	2	9	88
10:00	166	84	42	7	15	8	27	349	51	35	18	2	11	1	10	128
10:15	146	62	30	4	11	4	20	277	45	25	6	3	20	3	4	106
10:30	163	66	38	10	10	8	26	321	50	41	15	1	9	4	5	125
10:45	156	59	46	4	13	5	32	315	54	27	13	4	10	3	1	112
11:00	114	49	38	3	8	2	17	231	56	42	12	6	8	3	6	133
11:15	129	60	31	10	14	5	16	265	42	31	19	1	10	4	6	113
11:30	135	52	41	3	10	8	24	273	51	21	15	0	9	4	7	107
11:45	115	49	29	6	9	7	21	236	60	34	16	2	9	5	10	136
12:00	129	46	31	3	12	2	14	237	61	36	16	1	13	7	12	146
12:15	129	47	23	2	15	6	20	242	67	30	18	2	15	3	14	149
12:30	120	42	35	11	7	7	21	243	65	34	22	1	9	2	20	153
12:45	121	41	35	3	12	9	28	249	82	37	9	3	9	2	13	155
13:00	118	45	31	7	15	3	31	250	88	14	11	4	11	6	21	155
13:15	118	42	31	2	5	5	17	220	72	32	17	0	12	6	15	154
13:30	123	49	37	7	19	7	17	259	91	23	16	3	5	2	20	160
13:45	135	41	36	1	16	1	18	248	86	29	14	4	14	3	14	164
14:00	128	40	24	5	16	7	14	234	94	22	15	1	9	3	20	164
14:15	133	55	19	4	7	5	20	243	103	25	14	2	10	2	21	177
14:30	92	51	25	3	13	6	13	203	74	23	21	4	12	5	14	153
14:45	108	38	18	4	11	5	13	197	93	31	20	4	8	5	27	188
15:00	103	46	21	3	16	5	10	204	112	34	24	2	10	3	20	205
15:15	134	58	22	7	7	7	21	256	115	36	27	1	17	8	18	222
15:30	143	35	15	2	16	5	18	234	123	28	25	1	6	2	17	202
15:45	119	52	27	1	16	6	16	237	135	25	28	0	13	7	30	238
16:00	118	38	18	2	8	5	10	199	144	26	27	1	8	6	30	242
16:15	132	30	26	3	20	3	29	243	159	32	24	1	12	13	45	286
16:30	119	49	24	0	15	4	14	225	121	19	21	1	9	9	40	220
16:45	140	37	21	1	13	3	24	239	166	31	20	1	13	14	61	306
17:00	136	35	13	1	20	3	42	250	134	21	21	1	13	7	61	258
17:15	145	39	11	0	16	8	35	254	113	38	10	1	15	7	111	295
17:30	103	51	10	2	13	4	47	230	138	37	19	0	12	12	110	328
17:45	134	33	8	3	12	6	37	233	148	33	15	1	12	10	126	345
18:00	122	48	15	1	11	6	35	238	134	43	14	4	9	14	103	321
18:15	133	56	12	1	17	3	38	260	166	48	15	2	10	10	110	361
18:30	137	70	7	2	17	1	30	264	170	51	13	1	13	6	65	319
18:45	138	60	12	2	10	2	25	249	150	30	8	1	15	5	51	260
25.75	7108	2474	1296	184	653	347	1953	14015	4185	1351	697	83	544	226	1450	8536

Site No. 1
Location R105(N) / R101(N) / R105(S) / R101(S)
Date 04 October 2018

Time	To Arm D - R101(S)							Veh. Total	From Arm D - R101(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	128	6	38	5	0	1	44	222	49	8	12	3	3	2	4	81
07:15	108	8	33	5	0	6	66	226	78	13	12	6	0	0	4	113
07:30	126	4	26	5	0	8	82	251	57	9	12	3	1	1	6	89
07:45	121	2	26	3	0	6	102	260	47	11	12	5	2	3	13	93
08:00	112	4	12	2	0	5	93	228	41	13	13	0	9	1	8	85
08:15	120	15	12	7	0	18	163	335	54	16	9	7	2	1	9	98
08:30	124	9	16	1	0	14	173	337	43	4	6	3	7	0	13	76
08:45	124	12	14	2	0	15	187	354	60	20	10	4	2	3	15	114
09:00	110	10	21	6	1	9	111	268	45	11	9	8	1	4	9	87
09:15	90	10	15	3	0	6	71	195	62	15	8	3	3	1	5	97
09:30	74	12	16	6	0	7	46	161	33	23	12	6	1	3	5	83
09:45	76	17	21	4	2	6	31	157	54	16	13	5	2	3	7	100
10:00	66	16	26	1	0	3	18	130	42	19	12	8	0	1	6	88
10:15	70	21	26	15	0	4	11	147	55	20	13	5	1	1	4	99
10:30	61	11	25	8	1	3	12	121	61	23	21	3	0	1	3	112
10:45	61	15	26	7	0	5	10	124	43	19	18	6	1	1	3	91
11:00	66	16	21	6	1	1	13	124	55	27	15	6	2	1	7	113
11:15	61	8	22	5	0	1	11	108	39	20	19	8	1	1	5	93
11:30	68	13	26	6	2	3	14	132	64	15	15	5	2	1	13	115
11:45	69	10	27	7	2	5	5	125	52	17	18	3	1	1	6	98
12:00	78	12	15	3	0	2	10	120	59	18	16	6	1	3	2	105
12:15	63	7	22	5	0	5	12	114	63	16	22	2	2	0	3	108
12:30	80	22	27	4	0	1	7	141	64	19	24	7	1	3	4	122
12:45	64	15	10	2	2	3	11	107	59	16	13	6	2	3	6	105
13:00	68	17	16	3	1	2	4	111	67	14	22	6	2	2	9	122
13:15	77	10	20	3	0	1	6	117	75	10	14	4	0	1	9	113
13:30	68	14	11	5	2	1	6	107	88	16	19	4	1	3	14	145
13:45	69	20	17	6	3	3	13	131	66	19	16	4	1	2	9	117
14:00	71	15	23	4	0	3	15	131	60	12	24	2	2	3	13	116
14:15	74	11	18	3	3	2	7	118	63	16	19	8	0	3	22	131
14:30	68	10	13	4	0	0	11	106	75	16	17	3	3	4	9	127
14:45	72	16	12	6	3	1	13	123	65	13	23	0	6	7	10	124
15:00	51	16	19	4	1	2	7	100	66	14	16	0	1	4	19	120
15:15	62	16	8	5	2	1	13	107	68	15	23	4	1	0	8	119
15:30	77	18	12	1	1	4	12	125	61	11	19	1	2	2	19	115
15:45	58	20	14	2	0	2	15	111	76	6	11	2	4	6	23	128
16:00	69	15	12	3	1	1	8	109	69	4	17	3	1	2	30	126
16:15	83	12	9	0	1	5	12	122	100	10	28	2	9	6	44	199
16:30	94	13	17	2	1	4	18	149	117	10	22	0	4	6	45	204
16:45	84	16	13	1	1	3	19	137	119	7	12	2	4	6	60	210
17:00	67	12	17	1	4	4	18	123	116	14	15	1	6	9	83	244
17:15	92	11	7	1	0	4	21	136	115	3	8	1	4	7	120	258
17:30	65	16	11	0	2	5	21	120	144	11	15	2	0	21	127	320
17:45	95	15	10	3	0	3	12	138	120	7	11	1	1	7	123	270
18:00	68	16	5	2	1	2	20	114	112	10	12	2	1	7	112	256
18:15	106	15	9	1	1	1	3	136	121	5	10	3	2	5	117	263
18:30	69	16	8	0	1	4	9	107	100	14	12	0	0	4	71	201
18:45	66	14	7	0	0	2	8	97	96	10	8	0	0	4	72	190
25.75	3893	629	831	178	40	197	1594	7362	3438	655	727	173	102	160	1328	#REF!

Site No. 2
Location R105(N) / Talbot Street / R105(S)
Date 04 October 2018

Time	A to C - R105(N) to R105(S)							Veh. Total	A to B - R105(N) to Talbot Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	248	16	53	4	6	4	25	356	10	3	6	1	4	0	2	26
07:15	220	21	36	3	5	5	38	328	14	6	3	2	13	0	0	38
07:30	219	30	38	0	8	7	42	344	10	5	3	1	4	0	8	31
07:45	184	19	32	3	5	10	59	312	8	10	4	0	11	5	14	52
08:00	185	33	29	1	11	14	74	347	10	9	1	2	11	5	7	45
08:15	173	35	32	2	12	9	88	351	7	8	3	1	13	2	21	55
08:30	177	50	23	3	10	13	162	438	8	5	1	1	10	1	12	38
08:45	159	55	20	2	15	23	149	423	21	13	5	0	10	3	24	76
09:00	153	71	17	1	15	14	107	378	21	8	4	3	9	1	20	66
09:15	139	60	29	6	8	8	74	324	20	9	4	1	15	1	14	64
09:30	180	73	32	1	12	16	57	371	13	16	9	1	8	1	9	57
09:45	160	66	30	6	9	4	46	321	15	14	4	1	13	1	7	55
10:00	146	65	24	5	12	7	20	279	17	13	10	2	11	0	2	55
10:15	116	88	32	3	9	4	17	269	16	10	9	0	9	0	4	48
10:30	133	60	27	3	3	5	17	248	14	10	7	3	12	0	6	52
10:45	123	47	36	5	8	4	22	245	16	16	4	1	9	1	3	50
11:00	102	43	32	2	4	2	14	199	10	11	3	0	7	0	4	35
11:15	99	48	24	6	8	6	16	207	22	6	10	2	12	0	4	56
11:30	105	40	33	3	7	3	19	210	15	15	4	0	8	4	4	50
11:45	92	45	23	3	5	4	17	189	19	8	4	2	11	2	5	51
12:00	118	62	28	1	4	2	13	228	13	6	6	1	8	1	3	38
12:15	105	44	14	2	10	7	14	196	14	10	6	1	11	0	2	44
12:30	104	36	21	8	2	7	20	198	15	10	13	2	8	1	5	54
12:45	95	61	26	3	12	6	15	218	15	12	5	0	7	1	8	48
13:00	75	44	25	5	10	3	17	179	20	3	6	0	9	1	6	45
13:15	92	40	18	1	7	5	13	176	13	13	10	1	6	1	5	49
13:30	93	34	26	7	10	5	10	185	20	9	7	0	9	0	6	51
13:45	94	43	20	4	11	1	14	187	14	8	13	0	3	1	3	42
14:00	100	37	21	3	10	5	17	193	18	8	5	1	12	0	2	46
14:15	97	48	20	3	6	5	16	195	9	4	2	0	8	1	4	28
14:30	77	37	15	2	8	6	14	159	14	5	4	1	7	1	2	34
14:45	71	40	20	4	5	3	10	153	18	13	1	1	5	1	5	44
15:00	77	41	17	1	9	6	5	156	10	8	2	0	11	0	3	34
15:15	117	46	14	4	7	3	14	205	12	6	6	2	8	0	6	40
15:30	94	34	12	3	7	4	10	164	15	9	3	0	14	1	2	44
15:45	93	45	22	0	7	3	18	188	14	17	6	0	11	1	4	53
16:00	92	33	13	2	3	4	6	153	28	9	9	1	8	1	5	61
16:15	103	38	21	1	12	3	23	201	16	5	3	1	14	0	4	43
16:30	97	47	19	0	9	5	7	184	24	6	3	0	12	1	6	52
16:45	107	36	14	1	5	3	26	192	14	5	5	0	13	0	5	42
17:00	110	27	9	0	14	2	41	203	22	7	3	0	11	2	8	53
17:15	119	37	5	1	8	7	34	211	15	5	4	0	11	0	8	43
17:30	80	39	7	3	10	3	42	184	28	13	2	0	11	0	7	61
17:45	94	32	6	1	4	5	30	172	22	9	2	1	11	0	9	54
18:00	114	44	6	1	9	4	33	211	21	10	3	0	9	1	5	49
18:15	115	45	11	1	8	3	34	217	23	12	0	0	13	0	5	53
18:30	121	59	5	1	6	1	22	215	21	14	0	1	12	0	9	57
18:45	116	46	13	2	6	2	21	206	19	7	0	0	4	0	6	36
Total	5883	2140	1050	127	391	275	1602	11468	773	438	227	38	466	43	313	2298

Site No. 2
Location R105(N) / Talbot Street / R105(S)
Date 04 October 2018

Time	B to A - Talbot Street to R105(N)							Veh. Total	B to C - Talbot Street to R105(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2
08:15	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2
08:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
08:45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2
09:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
13:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
13:30	0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	1
13:45	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	1
15:00	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2
15:15	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2
16:15	0	0	0	0	0	0	10	10	0	0	0	0	0	0	2	2
16:30	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	3	3
17:00	0	0	0	0	0	0	5	5	0	0	0	0	0	0	1	1
17:15	0	0	0	0	0	0	8	8	0	0	0	0	0	0	1	1
17:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2
18:00	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	7	7	0	0	0	0	0	0	2	2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
18:45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
25.75	0	0	0	0	0	0	85	85	0	0	0	0	0	0	35	35

Site No. 2
Location R105(N) / Talbot Street / R105(S)
Date 04 October 2018

Time	C to B - R105(S) to Talbot Street							Veh. Total	C to A - R105(S) to R105(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	5	7	2	0	0	0	4	18	66	3	9	0	13	0	5	96
07:15	2	6	2	1	0	1	1	13	58	9	10	2	11	2	11	103
07:30	7	1	1	1	0	2	3	15	67	22	11	1	12	2	14	129
07:45	2	1	2	1	1	0	3	10	51	16	11	2	11	0	18	109
08:00	3	2	4	2	0	0	1	12	68	19	10	1	11	1	24	134
08:15	5	3	3	3	1	3	3	21	63	19	9	0	17	2	14	124
08:30	3	3	3	2	1	2	5	19	58	28	6	1	14	6	25	138
08:45	6	5	5	1	0	0	6	23	38	17	3	0	15	3	24	100
09:00	4	4	1	2	2	0	4	17	47	29	8	3	13	0	15	115
09:15	5	6	0	3	2	3	2	21	45	31	7	1	19	1	14	118
09:30	5	1	1	0	1	0	3	11	36	23	4	0	20	3	18	104
09:45	8	8	2	0	0	0	3	21	52	41	7	1	14	3	10	128
10:00	16	2	0	1	1	1	2	23	53	49	17	3	13	1	7	143
10:15	7	7	2	2	0	0	1	19	70	49	9	2	24	4	8	166
10:30	1	5	5	0	1	0	3	15	52	47	16	2	9	3	6	135
10:45	4	7	6	0	1	0	1	19	58	38	15	4	10	3	2	130
11:00	4	8	4	0	0	0	1	17	61	51	14	7	9	2	6	150
11:15	6	5	6	0	1	1	0	19	56	42	15	1	12	4	5	135
11:30	6	3	3	2	0	0	0	14	58	34	19	2	13	3	5	134
11:45	4	9	0	0	1	0	2	16	72	36	20	2	13	6	13	162
12:00	6	6	5	2	0	1	0	20	68	49	22	3	14	3	10	169
12:15	2	8	1	0	1	0	2	14	70	44	20	2	18	2	13	169
12:30	3	7	3	0	0	0	1	14	66	39	19	2	9	1	19	155
12:45	5	8	3	1	0	0	2	19	89	37	15	7	11	1	13	173
13:00	6	6	3	0	0	0	4	19	100	32	12	3	15	7	12	181
13:15	7	8	3	0	1	1	3	23	85	39	16	2	12	6	14	174
13:30	10	4	1	0	0	0	1	16	98	26	25	3	7	3	15	177
13:45	9	7	2	0	1	0	0	19	94	37	17	5	17	2	13	185
14:00	11	6	1	1	0	0	2	21	114	31	15	0	11	4	22	197
14:15	2	8	2	1	1	0	3	17	110	29	14	2	12	4	15	186
14:30	3	11	3	1	0	0	2	20	83	36	23	6	12	2	14	176
14:45	3	7	5	0	1	0	1	17	109	46	22	3	13	6	24	223
15:00	5	3	2	1	1	1	0	13	134	39	21	1	7	1	18	221
15:15	7	6	2	0	0	1	0	16	117	47	28	1	21	6	18	238
15:30	6	5	1	1	0	1	1	15	136	36	35	0	8	7	19	241
15:45	7	3	1	0	2	1	3	17	151	28	24	3	16	5	19	246
16:00	4	2	0	0	0	0	2	8	146	29	34	1	6	5	31	252
16:15	1	11	0	0	0	0	3	15	180	42	24	1	14	13	40	314
16:30	8	9	1	0	1	0	4	23	183	33	24	2	10	9	45	306
16:45	9	13	1	0	0	2	3	28	183	40	21	1	15	14	57	331
17:00	6	6	1	0	0	0	4	17	152	40	29	1	13	7	52	294
17:15	6	7	1	0	0	2	7	23	155	41	14	1	19	7	108	345
17:30	7	8	1	0	0	0	4	20	172	44	15	0	15	11	103	360
17:45	6	3	2	0	1	0	8	20	184	37	15	2	11	11	116	376
18:00	2	1	1	0	0	1	14	19	173	48	19	0	13	14	104	371
18:15	7	8	0	0	0	0	8	23	186	54	18	1	17	11	98	385
18:30	6	8	1	1	0	0	2	18	199	54	16	0	13	8	65	355
18:45	8	6	1	0	1	0	4	20	164	33	9	0	16	6	47	275
25.75	265	278	100	30	24	24	136	857	4830	1693	786	88	638	225	1368	9628

Site No. 2
Location R105(N) / Talbot Street / R105(S)
Date 04 October 2018

Time	To Arm A - R105(N)							Veh. Total	From Arm A - R105(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	66	3	9	0	13	0	5	96	258	19	59	5	10	4	27	382
07:15	58	9	10	2	11	2	11	103	234	27	39	5	18	5	38	366
07:30	67	22	11	1	12	2	14	129	229	35	41	1	12	7	50	375
07:45	51	16	11	2	11	0	21	112	192	29	36	3	16	15	73	364
08:00	68	19	10	1	11	1	25	135	195	42	30	3	22	19	81	392
08:15	63	19	9	0	17	2	16	126	180	43	35	3	25	11	109	406
08:30	58	28	6	1	14	6	26	139	185	55	24	4	20	14	174	476
08:45	38	17	3	0	15	3	26	102	180	68	25	2	25	26	173	499
09:00	47	29	8	3	13	0	17	117	174	79	21	4	24	15	127	444
09:15	45	31	7	1	19	1	15	119	159	69	33	7	23	9	88	388
09:30	36	23	4	0	20	3	18	104	193	89	41	2	20	17	66	428
09:45	52	41	7	1	14	3	12	130	175	80	34	7	22	5	53	376
10:00	53	49	17	3	13	1	7	143	163	78	34	7	23	7	22	334
10:15	70	49	9	2	24	4	8	166	132	98	41	3	18	4	21	317
10:30	52	47	16	2	9	3	7	136	147	70	34	6	15	5	23	300
10:45	58	38	15	4	10	3	2	130	139	63	40	6	17	5	25	295
11:00	61	51	14	7	9	2	6	150	112	54	35	2	11	2	18	234
11:15	56	42	15	1	12	4	5	135	121	54	34	8	20	6	20	263
11:30	58	34	19	2	13	3	6	135	120	55	37	3	15	7	23	260
11:45	72	36	20	2	13	6	13	162	111	53	27	5	16	6	22	240
12:00	68	49	22	3	14	3	12	171	131	68	34	2	12	3	16	266
12:15	70	44	20	2	18	2	13	169	119	54	20	3	21	7	16	240
12:30	66	39	19	2	9	1	19	155	119	46	34	10	10	8	25	252
12:45	89	37	15	7	11	1	13	173	110	73	31	3	19	7	23	266
13:00	100	32	12	3	15	7	13	182	95	47	31	5	19	4	23	224
13:15	85	39	16	2	12	6	15	175	105	53	28	2	13	6	18	225
13:30	98	26	25	3	7	3	17	179	113	43	33	7	19	5	16	236
13:45	94	37	17	5	17	2	16	188	108	51	33	4	14	2	17	229
14:00	114	31	15	0	11	4	25	200	118	45	26	4	22	5	19	239
14:15	110	29	14	2	12	4	15	186	106	52	22	3	14	6	20	223
14:30	83	36	23	6	12	2	15	177	91	42	19	3	15	7	16	193
14:45	109	46	22	3	13	6	26	225	89	53	21	5	10	4	15	197
15:00	134	39	21	1	7	1	20	223	87	49	19	1	20	6	8	190
15:15	117	47	28	1	21	6	20	240	129	52	20	6	15	3	20	245
15:30	136	36	35	0	8	7	21	243	109	43	15	3	21	5	12	208
15:45	151	28	24	3	16	5	22	249	107	62	28	0	18	4	22	241
16:00	146	29	34	1	6	5	33	254	120	42	22	3	11	5	11	214
16:15	180	42	24	1	14	13	50	324	119	43	24	2	26	3	27	244
16:30	183	33	24	2	10	9	47	308	121	53	22	0	21	6	13	236
16:45	183	40	21	1	15	14	59	333	121	41	19	1	18	3	31	234
17:00	152	40	29	1	13	7	57	299	132	34	12	0	25	4	49	256
17:15	155	41	14	1	19	7	116	353	134	42	9	1	19	7	42	254
17:30	172	44	15	0	15	11	104	361	108	52	9	3	21	3	49	245
17:45	184	37	15	2	11	11	118	378	116	41	8	2	15	5	39	226
18:00	173	48	19	0	13	14	108	375	135	54	9	1	18	5	38	260
18:15	186	54	18	1	17	11	105	392	138	57	11	1	21	3	39	270
18:30	199	54	16	0	13	8	65	355	142	73	5	2	18	1	31	272
18:45	164	33	9	0	16	6	49	277	135	53	13	2	10	2	27	242
25.75	4830	1693	786	88	638	225	1453	9713	6656	2578	1277	165	857	318	1915	13766

Site No. 2
Location R105(N) / Talbot Street / R105(S)
Date 04 October 2018

Time	To Arm B - Talbot Street							Veh. Total	From Arm B - Talbot Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	15	10	8	1	4	0	6	44	0	0	0	0	0	0	1	1
07:15	16	12	5	3	13	1	1	51	0	0	0	0	0	0	1	1
07:30	17	6	4	2	4	2	11	46	0	0	0	0	0	0	0	0
07:45	10	11	6	1	12	5	17	62	0	0	0	0	0	0	3	3
08:00	13	11	5	4	11	5	8	57	0	0	0	0	0	0	3	3
08:15	12	11	6	4	14	5	24	76	0	0	0	0	0	0	4	4
08:30	11	8	4	3	11	3	17	57	0	0	0	0	0	0	2	2
08:45	27	18	10	1	10	3	30	99	0	0	0	0	0	0	2	2
09:00	25	12	5	5	11	1	24	83	0	0	0	0	0	0	4	4
09:15	25	15	4	4	17	4	16	85	0	0	0	0	0	0	1	1
09:30	18	17	10	1	9	1	12	68	0	0	0	0	0	0	0	0
09:45	23	22	6	1	13	1	10	76	0	0	0	0	0	0	2	2
10:00	33	15	10	3	12	1	4	78	0	0	0	0	0	0	1	1
10:15	23	17	11	2	9	0	5	67	0	0	0	0	0	0	0	0
10:30	15	15	12	3	13	0	9	67	0	0	0	0	0	0	3	3
10:45	20	23	10	1	10	1	4	69	0	0	0	0	0	0	0	0
11:00	14	19	7	0	7	0	5	52	0	0	0	0	0	0	2	2
11:15	28	11	16	2	13	1	4	75	0	0	0	0	0	0	0	0
11:30	21	18	7	2	8	4	4	64	0	0	0	0	0	0	1	1
11:45	23	17	4	2	12	2	7	67	0	0	0	0	0	0	0	0
12:00	19	12	11	3	8	2	3	58	0	0	0	0	0	0	2	2
12:15	16	18	7	1	12	0	4	58	0	0	0	0	0	0	0	0
12:30	18	17	16	2	8	1	6	68	0	0	0	0	0	0	0	0
12:45	20	20	8	1	7	1	10	67	0	0	0	0	0	0	1	1
13:00	26	9	9	0	9	1	10	64	0	0	0	0	0	0	1	1
13:15	20	21	13	1	7	2	8	72	0	0	0	0	0	0	2	2
13:30	30	13	8	0	9	0	7	67	0	0	0	0	0	0	3	3
13:45	23	15	15	0	4	1	3	61	0	0	0	0	0	0	3	3
14:00	29	14	6	2	12	0	4	67	0	0	0	0	0	0	3	3
14:15	11	12	4	1	9	1	7	45	0	0	0	0	0	0	0	0
14:30	17	16	7	2	7	1	4	54	0	0	0	0	0	0	1	1
14:45	21	20	6	1	6	1	6	61	0	0	0	0	0	0	3	3
15:00	15	11	4	1	12	1	3	47	0	0	0	0	0	0	4	4
15:15	19	12	8	2	8	1	6	56	0	0	0	0	0	0	2	2
15:30	21	14	4	1	14	2	3	59	0	0	0	0	0	0	2	2
15:45	21	20	7	0	13	2	7	70	0	0	0	0	0	0	3	3
16:00	32	11	9	1	8	1	7	69	0	0	0	0	0	0	4	4
16:15	17	16	3	1	14	0	7	58	0	0	0	0	0	0	12	12
16:30	32	15	4	0	13	1	10	75	0	0	0	0	0	0	2	2
16:45	23	18	6	0	13	2	8	70	0	0	0	0	0	0	5	5
17:00	28	13	4	0	11	2	12	70	0	0	0	0	0	0	6	6
17:15	21	12	5	0	11	2	15	66	0	0	0	0	0	0	9	9
17:30	35	21	3	0	11	0	11	81	0	0	0	0	0	0	1	1
17:45	28	12	4	1	12	0	17	74	0	0	0	0	0	0	4	4
18:00	23	11	4	0	9	2	19	68	0	0	0	0	0	0	4	4
18:15	30	20	0	0	13	0	13	76	0	0	0	0	0	0	9	9
18:30	27	22	1	2	12	0	11	75	0	0	0	0	0	0	2	2
18:45	27	13	1	0	5	0	10	56	0	0	0	0	0	0	2	2
25.75	1038	716	327	68	490	67	449	3155	0	0	0	0	0	0	120	120

Site No. 2
Location R105(N) / Talbot Street / R105(S)
Date 04 October 2018

Time	To Arm C - R105(S)							Veh. Total	From Arm C - R105(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	248	16	53	4	6	4	26	357	71	10	11	0	13	0	9	114
07:15	220	21	36	3	5	5	39	329	60	15	12	3	11	3	12	116
07:30	219	30	38	0	8	7	42	344	74	23	12	2	12	4	17	144
07:45	184	19	32	3	5	10	59	312	53	17	13	3	12	0	21	119
08:00	185	33	29	1	11	14	76	349	71	21	14	3	11	1	25	146
08:15	173	35	32	2	12	9	90	353	68	22	12	3	18	5	17	145
08:30	177	50	23	3	10	13	163	439	61	31	9	3	15	8	30	157
08:45	159	55	20	2	15	23	149	423	44	22	8	1	15	3	30	123
09:00	153	71	17	1	15	14	109	380	51	33	9	5	15	0	19	132
09:15	139	60	29	6	8	8	74	324	50	37	7	4	21	4	16	139
09:30	180	73	32	1	12	16	57	371	41	24	5	0	21	3	21	115
09:45	160	66	30	6	9	4	46	321	60	49	9	1	14	3	13	149
10:00	146	65	24	5	12	7	21	280	69	51	17	4	14	2	9	166
10:15	116	88	32	3	9	4	17	269	77	56	11	4	24	4	9	185
10:30	133	60	27	3	3	5	19	250	53	52	21	2	10	3	9	150
10:45	123	47	36	5	8	4	22	245	62	45	21	4	11	3	3	149
11:00	102	43	32	2	4	2	16	201	65	59	18	7	9	2	7	167
11:15	99	48	24	6	8	6	16	207	62	47	21	1	13	5	5	154
11:30	105	40	33	3	7	3	19	210	64	37	22	4	13	3	5	148
11:45	92	45	23	3	5	4	17	189	76	45	20	2	14	6	15	178
12:00	118	62	28	1	4	2	13	228	74	55	27	5	14	4	10	189
12:15	105	44	14	2	10	7	14	196	72	52	21	2	19	2	15	183
12:30	104	36	21	8	2	7	20	198	69	46	22	2	9	1	20	169
12:45	95	61	26	3	12	6	16	219	94	45	18	8	11	1	15	192
13:00	75	44	25	5	10	3	17	179	106	38	15	3	15	7	16	200
13:15	92	40	18	1	7	5	14	177	92	47	19	2	13	7	17	197
13:30	93	34	26	7	10	5	11	186	108	30	26	3	7	3	16	193
13:45	94	43	20	4	11	1	14	187	103	44	19	5	18	2	13	204
14:00	100	37	21	3	10	5	17	193	125	37	16	1	11	4	24	218
14:15	97	48	20	3	6	5	16	195	112	37	16	3	13	4	18	203
14:30	77	37	15	2	8	6	14	159	86	47	26	7	12	2	16	196
14:45	71	40	20	4	5	3	11	154	112	53	27	3	14	6	25	240
15:00	77	41	17	1	9	6	7	158	139	42	23	2	8	2	18	234
15:15	117	46	14	4	7	3	14	205	124	53	30	1	21	7	18	254
15:30	94	34	12	3	7	4	10	164	142	41	36	1	8	8	20	256
15:45	93	45	22	0	7	3	18	188	158	31	25	3	18	6	22	263
16:00	92	33	13	2	3	4	8	155	150	31	34	1	6	5	33	260
16:15	103	38	21	1	12	3	25	203	181	53	24	1	14	13	43	329
16:30	97	47	19	0	9	5	7	184	191	42	25	2	11	9	49	329
16:45	107	36	14	1	5	3	29	195	192	53	22	1	15	16	60	359
17:00	110	27	9	0	14	2	42	204	158	46	30	1	13	7	56	311
17:15	119	37	5	1	8	7	35	212	161	48	15	1	19	9	115	368
17:30	80	39	7	3	10	3	42	184	179	52	16	0	15	11	107	380
17:45	94	32	6	1	4	5	32	174	190	40	17	2	12	11	124	396
18:00	114	44	6	1	9	4	33	211	175	49	20	0	13	15	118	390
18:15	115	45	11	1	8	3	36	219	193	62	18	1	17	11	106	408
18:30	121	59	5	1	6	1	24	217	205	62	17	1	13	8	67	373
18:45	116	46	13	2	6	2	21	206	172	39	10	0	17	6	51	295
25.75	5883	2140	1050	127	391	275	1637	11503	5095	1971	886	118	662	#REF!	#REF!	#REF!

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	A to D - Oriel Street Lower to R101(S)							Veh. Total	A to C - Oriel Street Lower to Oriel Street Upper							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	1	0	0	0	0	0	1	2	0	0	1	0	0	0	0	1
08:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:15	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
09:15	1	0	0	0	0	0	1	2	0	0	1	0	0	0	0	1
09:30	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	1
09:45	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	1
10:00	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
10:15	1	0	0	0	0	0	1	2	0	0	0	0	0	0	1	1
10:30	1	0	0	1	0	0	1	3	0	1	0	0	0	0	0	1
10:45	2	0	0	0	0	0	0	2	1	0	0	0	0	0	1	2
11:00	1	0	0	1	0	0	1	3	0	0	0	0	0	0	0	0
11:15	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
11:30	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
11:45	1	0	0	1	0	0	0	2	0	0	1	0	0	0	0	1
12:00	0	1	0	2	0	0	1	4	1	0	0	0	0	0	0	1
12:15	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
12:30	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1
12:45	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
13:00	1	0	1	1	0	0	1	4	1	0	0	0	0	0	0	1
13:15	2	1	0	0	0	0	0	3	1	0	0	0	1	0	0	2
13:30	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
13:45	0	0	2	0	0	1	0	3	1	0	0	0	0	0	0	1
14:00	2	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0
14:15	3	0	1	0	0	0	0	4	0	0	0	1	0	0	0	1
14:30	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
14:45	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3	4
15:00	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0
15:15	2	0	1	0	0	0	1	4	0	0	0	0	0	0	0	0
15:30	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
15:45	2	0	0	0	0	0	0	2	3	0	0	0	0	0	0	3
16:00	6	1	0	0	0	0	1	8	1	0	1	0	0	0	0	2
16:15	2	0	0	0	0	0	1	3	1	1	0	0	0	0	0	2
16:30	2	0	0	0	0	0	0	2	1	0	0	0	0	0	1	2
16:45	1	0	0	0	0	0	3	4	3	0	0	0	0	0	4	7
17:00	2	0	0	0	0	0	1	3	0	0	0	0	0	0	2	2
17:15	0	0	1	0	0	0	1	2	3	0	1	0	0	0	2	6
17:30	4	0	0	0	0	0	1	5	1	0	0	0	0	0	1	2
17:45	3	0	0	0	0	0	2	5	2	0	0	0	0	0	1	3
18:00	2	0	2	0	0	0	0	4	1	0	0	0	0	0	0	1
18:15	2	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1
18:30	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
18:45	3	0	0	0	0	0	0	3	2	0	0	0	0	0	1	3
Total	61	4	10	7	1	1	23	107	26	2	6	2	1	0	19	56

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	A to B - Oriel Street Lower to R101(N)							Veh. Total	B to A - R101(N) to Oriel Street Lower							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	0	0	1	0	0	0	0	1	4	0	0	1	0	0	0	5
07:15	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
07:30	1	0	0	0	0	0	0	1	2	0	1	0	0	0	0	3
07:45	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
08:00	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	2
08:15	1	0	0	2	0	0	0	3	2	0	0	0	0	0	0	2
08:30	1	0	0	0	0	0	0	1	2	0	0	0	0	1	1	4
08:45	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	2
09:00	0	0	0	0	0	0	0	0	2	0	1	0	1	0	0	4
09:15	0	0	0	0	1	0	0	1	4	0	2	0	0	0	0	6
09:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
09:45	2	0	0	0	0	0	0	2	3	1	2	1	1	0	0	8
10:00	2	0	1	1	0	0	0	4	1	0	1	1	0	0	0	3
10:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3
10:30	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	6
10:45	2	0	0	0	0	0	0	2	0	0	1	1	0	0	0	2
11:00	0	1	1	0	0	0	0	2	1	0	0	0	0	0	0	1
11:15	0	0	1	0	0	0	0	1	1	0	1	1	0	0	1	4
11:30	3	0	0	0	0	0	1	4	2	0	1	1	0	0	1	5
11:45	1	0	0	0	0	0	0	1	4	0	0	0	0	0	0	4
12:00	1	0	0	0	0	0	1	2	4	1	2	0	0	0	0	7
12:15	2	0	2	1	0	0	0	5	3	0	0	0	0	0	0	3
12:30	0	1	1	0	0	0	0	2	3	0	0	0	0	0	0	3
12:45	1	0	0	0	0	0	0	1	3	0	0	1	0	0	3	7
13:00	3	0	0	0	0	0	0	3	3	1	0	0	0	0	1	5
13:15	4	1	0	0	0	0	0	5	3	0	1	0	0	0	0	4
13:30	3	0	0	0	0	0	0	3	4	0	2	0	0	0	0	6
13:45	1	1	0	0	0	0	0	2	1	1	3	1	0	1	0	7
14:00	1	0	0	0	0	0	1	2	3	1	0	0	0	0	0	4
14:15	4	1	0	0	0	0	0	5	6	0	1	0	0	0	1	8
14:30	2	0	1	0	0	0	0	3	2	0	2	0	0	0	0	4
14:45	3	0	1	0	0	0	0	4	2	0	0	2	0	0	1	5
15:00	3	1	0	0	0	0	1	5	0	1	0	0	0	1	0	2
15:15	2	0	0	0	0	0	0	2	4	0	0	0	0	0	1	5
15:30	2	0	1	0	0	0	0	3	2	0	1	0	0	0	0	3
15:45	1	0	0	0	0	0	2	3	3	0	0	0	0	0	0	3
16:00	0	0	0	0	0	0	0	0	1	2	0	1	0	0	1	5
16:15	3	0	0	0	0	0	0	3	4	0	3	0	0	0	2	9
16:30	5	0	0	0	0	0	0	5	2	0	0	0	0	0	1	3
16:45	1	0	0	0	0	0	0	1	2	0	2	0	0	0	1	5
17:00	5	0	1	0	0	1	1	8	1	0	0	0	0	0	0	1
17:15	2	0	0	0	0	0	0	2	4	0	0	0	0	0	1	5
17:30	2	0	1	0	0	0	0	3	2	0	2	0	0	0	1	5
17:45	2	0	0	0	0	0	0	2	3	1	0	0	0	0	2	6
18:00	2	2	0	0	0	0	0	4	2	1	0	0	0	0	0	3
18:15	2	0	0	0	0	0	0	2	7	0	1	0	0	0	0	8
18:30	3	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2
18:45	3	0	0	0	0	0	0	3	5	1	1	0	0	0	0	7
25.75	78	8	12	4	1	1	8	112	119	12	35	13	2	3	20	204

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	B to D - R101(N) to R101(S)							Veh. Total	B to C - R101(N) to Oriel Street Upper							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	95	2	31	2	0	1	49	180	38	2	6	3	0	0	1	50
07:15	73	2	25	4	0	4	57	165	29	6	7	0	0	2	3	47
07:30	78	1	20	2	0	7	81	189	42	1	4	4	0	1	9	61
07:45	72	3	15	3	0	4	93	190	40	1	8	0	0	3	1	53
08:00	62	4	13	1	0	5	93	178	44	0	2	0	0	0	3	49
08:15	61	11	9	6	0	12	145	244	54	4	3	1	0	4	12	78
08:30	63	7	9	1	0	12	160	252	51	2	5	0	0	1	19	78
08:45	59	10	8	1	0	13	160	251	64	2	4	1	0	3	20	94
09:00	62	7	14	5	0	10	109	207	51	1	7	2	0	0	9	70
09:15	49	9	9	2	0	5	61	135	29	2	4	1	0	1	5	42
09:30	57	7	15	5	0	5	49	138	25	5	1	0	0	1	4	36
09:45	50	11	15	2	0	6	26	110	17	5	4	1	1	0	4	32
10:00	48	12	19	1	0	3	19	102	9	4	8	0	0	1	3	25
10:15	54	17	17	12	0	3	9	112	8	2	8	2	0	0	1	21
10:30	48	12	16	5	1	3	11	96	6	1	4	2	0	0	0	13
10:45	46	13	18	8	0	4	11	100	15	2	6	0	1	0	2	26
11:00	55	13	20	5	0	1	14	108	8	2	2	1	0	0	0	13
11:15	55	5	19	3	0	2	10	94	11	2	2	0	0	0	0	15
11:30	48	10	19	5	2	1	12	97	10	3	5	1	0	1	0	20
11:45	50	10	23	6	1	4	6	100	9	0	4	0	0	2	0	15
12:00	64	9	13	4	1	1	9	101	17	1	2	0	0	1	0	21
12:15	55	7	19	5	0	2	14	102	13	1	2	0	0	2	2	20
12:30	57	18	19	3	0	1	5	103	12	4	6	1	0	0	0	23
12:45	53	12	9	1	2	2	8	87	16	1	3	0	0	1	1	22
13:00	58	16	16	2	1	1	5	99	5	1	0	1	0	1	1	9
13:15	62	10	12	3	0	1	8	96	10	0	2	0	0	0	1	13
13:30	53	13	9	5	1	1	5	87	11	1	2	0	1	0	0	15
13:45	59	16	14	5	2	1	11	108	12	2	3	0	1	1	0	19
14:00	57	14	19	4	0	2	12	108	11	1	2	0	0	0	1	15
14:15	63	9	14	3	1	1	8	99	8	1	4	0	1	0	0	14
14:30	54	8	9	3	1	2	11	88	10	2	0	0	0	0	1	13
14:45	51	14	9	5	1	0	11	91	16	2	2	0	1	1	0	22
15:00	42	9	18	4	1	1	10	85	8	5	3	0	1	1	0	18
15:15	43	12	4	4	1	0	9	73	9	5	5	0	0	1	3	23
15:30	58	14	8	2	0	2	14	98	15	2	3	0	1	2	0	23
15:45	51	14	11	2	1	2	13	94	4	6	2	0	0	0	1	13
16:00	46	10	9	2	1	1	7	76	9	2	2	0	0	0	0	13
16:15	77	12	5	0	1	5	17	117	17	2	2	0	0	0	0	21
16:30	78	11	15	3	1	3	13	124	12	4	2	0	0	2	0	20
16:45	71	12	8	1	0	2	15	109	12	4	3	0	0	0	1	20
17:00	53	7	17	1	3	3	13	97	15	4	1	0	1	0	1	22
17:15	74	8	6	1	1	3	19	112	18	2	2	0	0	2	2	26
17:30	44	9	7	0	1	5	20	86	20	6	1	0	1	2	1	31
17:45	78	10	7	2	0	2	13	112	15	6	2	0	0	0	1	24
18:00	57	15	2	3	1	3	9	90	11	3	0	0	0	0	1	15
18:15	84	11	7	0	1	4	3	110	18	5	2	1	0	0	0	26
18:30	57	13	7	0	1	2	10	90	10	6	2	0	0	1	0	19
18:45	58	13	3	0	0	0	10	84	7	1	3	0	0	0	1	12
25.75	2842	492	630	147	28	158	1477	5774	901	127	157	22	10	38	115	1370

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	C to B - Oriel Street Upper to R101(N)							Veh. Total	C to A - Oriel Street Upper to Oriel Street Lower							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	5	0	2	1	1	0	0	9	0	0	1	0	0	0	0	1
07:15	7	4	2	0	0	0	0	13	0	0	0	0	0	0	0	0
07:30	9	1	2	0	0	0	0	12	1	0	0	0	0	0	2	3
07:45	5	1	4	1	1	0	0	12	1	0	0	0	0	0	0	1
08:00	4	2	3	0	0	0	0	9	0	0	0	0	0	0	0	0
08:15	6	7	0	0	0	0	0	13	0	0	0	1	0	0	0	1
08:30	6	3	1	0	0	0	1	11	0	0	0	0	0	0	0	0
08:45	10	3	2	0	0	1	0	16	0	0	0	0	0	0	0	0
09:00	10	5	3	0	1	0	2	21	2	0	0	0	0	1	0	3
09:15	8	1	3	2	0	0	0	14	2	0	0	0	0	0	0	2
09:30	3	4	3	0	0	0	0	10	0	0	0	0	0	0	0	0
09:45	10	1	2	0	0	0	0	13	0	0	0	0	0	0	0	0
10:00	4	0	2	1	0	0	1	8	0	0	0	0	0	0	0	0
10:15	3	4	2	0	1	0	1	11	1	0	0	0	0	0	1	2
10:30	6	5	3	1	0	0	0	15	0	1	0	0	0	0	1	2
10:45	2	6	5	1	1	0	0	15	0	0	0	1	0	0	0	1
11:00	7	4	1	0	0	0	0	12	1	2	1	0	0	0	0	4
11:15	11	5	1	2	0	1	0	20	1	0	0	0	0	0	0	1
11:30	6	3	3	1	0	0	3	16	1	0	0	0	0	0	0	1
11:45	7	6	2	0	0	1	0	16	1	0	0	0	0	0	1	2
12:00	8	5	5	1	0	0	0	19	0	0	0	0	0	0	0	0
12:15	14	5	3	0	0	0	0	22	0	0	0	0	0	0	0	0
12:30	16	1	4	1	0	1	0	23	0	0	0	0	0	0	0	0
12:45	6	5	0	0	0	0	1	12	0	0	0	0	0	0	0	0
13:00	10	2	1	1	0	1	0	15	0	0	0	0	1	0	0	1
13:15	13	1	3	1	0	0	1	19	3	2	0	0	0	0	0	5
13:30	16	2	5	1	0	0	0	24	0	0	0	0	0	0	0	0
13:45	15	5	1	0	0	0	0	21	0	0	0	1	0	0	0	1
14:00	18	2	3	0	0	1	1	25	0	0	1	0	0	0	0	1
14:15	11	4	6	0	0	0	0	21	0	0	1	0	0	0	2	3
14:30	15	2	6	0	0	0	2	25	1	0	0	0	0	0	2	3
14:45	9	2	3	0	0	0	0	14	0	0	0	0	0	0	0	0
15:00	14	4	4	0	0	0	1	23	1	0	0	0	0	0	1	2
15:15	11	2	3	0	0	0	1	17	2	0	0	0	0	0	0	2
15:30	19	2	1	0	0	0	2	24	0	0	0	0	0	0	0	0
15:45	25	5	3	0	0	0	1	34	0	0	0	0	0	0	0	0
16:00	20	0	7	0	0	0	4	31	0	0	1	0	0	0	0	1
16:15	24	1	7	0	0	1	4	37	2	0	0	0	0	0	0	2
16:30	30	0	5	0	0	1	7	43	1	0	0	0	0	0	1	2
16:45	40	0	3	0	0	1	2	46	0	0	0	0	0	0	1	1
17:00	38	4	4	0	0	3	6	55	0	0	0	0	0	0	0	0
17:15	45	2	3	0	0	1	10	61	2	0	0	0	0	0	0	2
17:30	31	5	7	0	0	2	10	55	0	0	0	0	0	0	0	0
17:45	33	2	3	1	0	0	8	47	0	0	0	1	0	0	0	1
18:00	37	4	1	0	0	0	10	52	1	0	0	0	0	0	1	2
18:15	29	1	2	0	0	0	9	41	1	0	0	0	0	0	1	2
18:30	27	4	2	0	0	0	7	40	0	0	0	0	0	0	2	2
18:45	25	4	1	0	0	1	3	34	0	0	0	0	0	0	2	2
25.75	728	141	142	16	5	16	98	1146	25	5	5	4	1	1	18	59

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	C to D - Oriel Street Upper to R101(S)							Veh. Total	D to C - R101(S) to Oriel Street Upper							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	0	0	1	0	0	0	0	1	25	0	5	2	0	0	0	32
07:15	2	0	0	0	0	0	0	2	31	2	8	1	2	0	0	44
07:30	0	1	0	0	0	0	0	1	33	2	10	1	1	0	1	48
07:45	2	0	2	0	0	0	0	4	33	0	5	0	0	0	0	38
08:00	1	0	1	0	0	0	0	2	39	1	12	3	4	0	0	59
08:15	0	0	1	0	0	0	0	1	28	1	2	1	1	0	0	33
08:30	2	0	1	0	1	1	0	5	25	0	3	1	2	1	1	33
08:45	1	2	0	0	0	0	0	3	39	0	9	2	1	0	1	52
09:00	3	0	0	0	0	0	0	3	34	6	2	1	1	0	1	45
09:15	3	0	0	0	0	0	0	3	58	3	6	1	3	2	0	73
09:30	2	1	1	0	0	0	0	4	30	4	9	0	0	1	1	45
09:45	1	0	1	0	0	0	0	2	22	0	5	0	1	0	0	28
10:00	1	1	2	0	0	0	0	4	16	3	5	0	3	0	0	27
10:15	4	0	3	0	0	0	0	7	14	1	7	1	4	1	0	28
10:30	3	1	0	0	0	0	1	5	15	1	4	0	2	0	0	22
10:45	6	1	1	1	0	0	0	9	11	0	3	1	0	0	1	16
11:00	5	0	0	0	0	0	0	5	14	4	6	2	1	0	0	27
11:15	3	0	2	0	0	0	0	5	10	0	3	0	1	0	0	14
11:30	1	3	3	0	0	1	1	9	7	1	2	0	2	0	1	13
11:45	3	1	0	0	0	0	0	4	8	3	5	1	0	0	1	18
12:00	4	0	2	0	0	0	0	6	7	1	3	0	1	0	0	12
12:15	6	0	1	0	0	0	0	7	14	2	5	1	1	0	0	23
12:30	6	2	3	1	0	0	0	12	5	2	2	1	0	1	2	13
12:45	8	1	1	1	0	0	0	11	3	2	3	0	1	0	0	9
13:00	9	4	1	1	0	0	0	15	9	0	5	1	1	0	0	16
13:15	7	1	1	0	0	0	1	10	7	4	1	1	1	0	0	14
13:30	4	0	0	1	0	0	0	5	8	1	3	1	1	0	1	15
13:45	6	1	2	0	0	0	1	10	7	1	4	1	1	1	0	15
14:00	3	0	0	0	0	0	0	3	9	1	4	0	2	0	0	16
14:15	4	0	0	0	0	0	0	4	13	1	3	0	2	0	0	19
14:30	2	4	1	0	1	0	1	9	8	0	2	0	1	0	2	13
14:45	4	2	3	1	0	0	0	10	6	1	1	2	1	0	0	11
15:00	5	3	2	1	0	0	0	11	7	3	2	1	1	0	0	14
15:15	6	1	2	1	0	0	0	10	8	1	3	0	4	0	0	16
15:30	11	0	5	1	0	0	0	17	8	2	3	0	1	0	0	14
15:45	7	1	2	0	0	0	0	10	4	0	5	0	1	0	0	10
16:00	11	3	4	0	0	0	1	19	7	2	6	0	2	0	0	17
16:15	13	3	4	1	0	0	0	21	8	0	4	1	1	1	0	15
16:30	10	0	0	0	0	0	0	10	9	2	2	0	0	0	0	13
16:45	14	1	1	0	1	0	0	17	8	2	4	0	1	1	0	16
17:00	13	2	5	0	0	1	0	21	11	1	0	0	1	0	1	14
17:15	14	3	3	0	1	0	0	21	9	0	0	0	2	1	4	16
17:30	12	1	0	0	0	0	1	14	12	1	2	1	0	0	1	17
17:45	10	1	1	1	0	1	0	14	7	2	0	0	1	0	1	11
18:00	12	1	2	0	0	0	0	15	4	2	1	0	3	0	0	10
18:15	12	0	3	0	0	0	0	15	14	4	2	0	1	0	1	22
18:30	12	0	0	0	0	0	2	14	5	3	1	0	2	1	1	13
18:45	5	1	0	0	0	0	0	6	11	0	1	0	1	0	0	13
25.75	273	47	68	11	4	4	9	416	720	73	183	29	64	11	22	1102

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	D to B - R101(S) to R101(N)							Veh. Total	D to A - R101(S) to Oriel Street Lower							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	46	8	8	1	2	2	6	73	0	0	0	0	0	0	0	0
07:15	63	8	9	6	0	1	4	91	1	0	0	0	0	0	0	1
07:30	50	9	9	3	1	1	7	80	1	0	0	0	0	0	1	2
07:45	41	9	9	4	2	3	10	78	1	0	0	0	0	0	0	1
08:00	42	11	14	1	8	0	8	84	1	0	0	0	0	0	0	1
08:15	44	9	5	5	3	2	9	77	1	0	0	0	0	0	0	1
08:30	37	5	6	2	6	0	14	70	0	0	0	0	0	0	0	0
08:45	49	12	7	4	2	2	12	88	0	0	0	0	0	0	0	0
09:00	38	7	5	8	0	4	8	70	1	0	0	0	0	0	0	1
09:15	52	13	6	1	2	1	5	80	1	0	0	0	0	0	0	1
09:30	37	19	10	7	1	4	6	84	0	0	0	0	0	0	0	0
09:45	51	15	13	5	2	3	8	97	1	0	0	0	0	0	0	1
10:00	29	21	7	6	0	2	5	70	0	0	0	0	0	0	0	0
10:15	47	14	12	4	0	1	3	81	0	0	0	0	0	0	0	0
10:30	47	18	17	2	0	1	3	88	0	1	0	0	0	0	0	1
10:45	47	15	16	7	1	2	3	91	1	0	0	1	0	0	0	2
11:00	39	20	10	5	1	0	8	83	1	0	0	0	0	0	0	1
11:15	37	15	17	5	1	0	5	80	0	0	0	0	0	0	0	0
11:30	46	11	12	4	2	1	10	86	0	0	0	0	0	0	0	0
11:45	40	11	16	4	1	1	7	80	2	1	0	0	0	0	0	3
12:00	51	15	13	5	2	3	1	90	2	0	0	0	0	0	0	2
12:15	44	9	17	1	2	0	4	77	0	0	0	0	0	0	0	0
12:30	43	17	16	5	0	4	3	88	1	0	0	0	0	0	0	1
12:45	56	14	13	7	2	3	5	100	1	0	0	0	0	0	0	1
13:00	59	9	22	4	2	1	9	106	0	0	0	0	0	0	0	0
13:15	55	7	11	3	0	2	8	86	3	0	0	0	0	0	1	4
13:30	63	15	13	3	1	3	13	111	0	0	0	0	0	0	0	0
13:45	43	13	15	4	1	2	11	89	2	0	0	0	0	0	0	2
14:00	49	10	24	3	2	2	14	104	0	0	1	0	0	0	0	1
14:15	52	13	10	7	0	4	22	108	1	0	0	0	0	0	0	1
14:30	50	11	10	3	3	4	9	90	3	0	0	0	0	0	0	3
14:45	45	11	20	0	6	7	11	100	0	0	0	0	0	0	0	0
15:00	48	11	11	0	1	4	20	95	0	0	1	0	1	0	1	3
15:15	57	11	21	4	0	0	8	101	1	0	0	0	0	0	0	1
15:30	44	9	18	2	3	2	18	96	2	0	0	0	0	0	0	2
15:45	61	2	8	2	4	6	22	105	0	0	0	0	0	0	0	0
16:00	35	7	12	3	1	5	31	94	1	0	1	0	0	0	0	2
16:15	80	6	19	1	9	7	43	165	1	0	0	0	0	0	0	1
16:30	73	9	17	0	4	6	44	153	2	0	0	0	0	0	0	2
16:45	74	9	12	2	4	11	63	175	0	0	0	0	0	0	0	0
17:00	67	8	8	1	6	6	74	170	1	0	0	0	0	0	0	1
17:15	74	2	6	1	4	8	119	214	2	0	0	0	0	0	0	2
17:30	104	5	9	2	0	20	112	252	0	0	0	0	0	0	0	0
17:45	77	6	6	0	2	6	124	221	2	0	0	0	0	0	1	3
18:00	78	4	11	2	0	8	108	211	1	0	0	0	0	0	2	3
18:15	92	5	9	3	2	6	106	223	1	0	1	0	0	0	0	2
18:30	69	12	7	1	0	4	65	158	4	0	0	0	0	0	0	4
18:45	70	7	8	0	0	4	68	157	2	0	1	0	0	0	0	3
25.75	2595	507	574	153	96	169	1276	5370	45	2	5	1	1	0	6	60

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	To Arm A - Oriel Street Lower							Veh. Total	From Arm A - Oriel Street Lower							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	4	0	1	1	0	0	0	6	0	0	1	0	0	0	0	1
07:15	2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
07:30	4	0	1	0	0	0	3	8	1	0	0	0	0	0	0	1
07:45	4	0	0	0	0	0	0	4	2	0	1	0	0	0	1	4
08:00	2	0	0	1	0	0	0	3	0	0	0	0	0	0	2	2
08:15	3	0	0	1	0	0	0	4	1	0	1	2	0	0	0	4
08:30	2	0	0	0	0	1	1	4	1	0	0	0	0	0	0	1
08:45	1	0	1	0	0	0	0	2	1	0	0	0	0	0	0	1
09:00	5	0	1	0	1	1	0	8	0	0	0	0	0	0	1	1
09:15	7	0	2	0	0	0	0	9	1	0	1	0	1	0	1	4
09:30	0	0	0	1	0	0	0	1	0	0	1	0	0	0	1	2
09:45	4	1	2	1	1	0	0	9	3	0	0	0	1	0	0	4
10:00	1	0	1	1	0	0	0	3	2	0	2	1	0	0	0	5
10:15	3	0	0	0	0	0	2	5	1	0	0	0	0	0	2	3
10:30	3	2	3	0	0	0	1	9	1	1	0	1	0	0	1	4
10:45	1	0	1	3	0	0	0	5	5	0	0	0	0	0	1	6
11:00	3	2	1	0	0	0	0	6	1	1	1	1	0	0	1	5
11:15	2	0	1	1	0	0	1	5	1	1	1	0	0	0	0	3
11:30	3	0	1	1	0	0	1	6	5	0	0	0	0	0	1	6
11:45	7	1	0	0	0	0	1	9	2	0	1	1	0	0	0	4
12:00	6	1	2	0	0	0	0	9	2	1	0	2	0	0	2	7
12:15	3	0	0	0	0	0	0	3	3	0	2	1	0	0	0	6
12:30	4	0	0	0	0	0	0	4	1	1	1	1	0	0	0	4
12:45	4	0	0	1	0	0	3	8	3	0	0	0	0	0	0	3
13:00	3	1	0	0	1	0	1	6	5	0	1	1	0	0	1	8
13:15	9	2	1	0	0	0	1	13	7	2	0	0	1	0	0	10
13:30	4	0	2	0	0	0	0	6	4	0	0	0	0	0	0	4
13:45	3	1	3	2	0	1	0	10	2	1	2	0	0	1	0	6
14:00	3	1	2	0	0	0	0	6	3	0	0	0	0	0	2	5
14:15	7	0	2	0	0	0	3	12	7	1	1	1	0	0	0	10
14:30	6	0	2	0	0	0	2	10	3	0	1	0	0	0	1	5
14:45	2	0	0	2	0	0	1	5	4	0	1	0	0	0	4	9
15:00	1	1	1	0	1	1	2	7	4	1	0	1	0	0	1	7
15:15	7	0	0	0	0	0	1	8	4	0	1	0	0	0	1	6
15:30	4	0	1	0	0	0	0	5	4	0	1	0	0	0	0	5
15:45	3	0	0	0	0	0	0	3	6	0	0	0	0	0	2	8
16:00	2	2	2	1	0	0	1	8	7	1	1	0	0	0	1	10
16:15	7	0	3	0	0	0	2	12	6	1	0	0	0	0	1	8
16:30	5	0	0	0	0	0	2	7	8	0	0	0	0	0	1	9
16:45	2	0	2	0	0	0	2	6	5	0	0	0	0	0	7	12
17:00	2	0	0	0	0	0	0	2	7	0	1	0	0	1	4	13
17:15	8	0	0	0	0	0	1	9	5	0	2	0	0	0	3	10
17:30	2	0	2	0	0	0	1	5	7	0	1	0	0	0	2	10
17:45	5	1	0	1	0	0	3	10	7	0	0	0	0	0	3	10
18:00	4	1	0	0	0	0	3	8	5	2	2	0	0	0	0	9
18:15	9	0	2	0	0	0	1	12	4	0	0	0	0	0	1	5
18:30	6	0	0	0	0	0	2	8	6	0	0	0	0	0	0	6
18:45	7	1	2	0	0	0	2	12	8	0	0	0	0	0	1	9
25.75	189	19	45	18	4	4	44	323	165	14	28	13	3	2	50	275

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	To Arm B - R101(N)							Veh. Total	From Arm B - R101(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	51	8	11	2	3	2	6	83	137	4	37	6	0	1	50	235
07:15	70	12	11	6	0	1	4	104	103	9	32	4	0	6	60	214
07:30	60	10	11	3	1	1	7	93	122	2	25	6	0	8	90	253
07:45	47	10	13	5	3	3	10	91	114	4	23	3	0	7	94	245
08:00	46	13	17	1	8	0	9	94	107	4	15	2	0	5	96	229
08:15	51	16	5	7	3	2	9	93	117	15	12	7	0	16	157	324
08:30	44	8	7	2	6	0	15	82	116	9	14	1	0	14	180	334
08:45	60	15	9	4	2	3	12	105	124	12	13	2	0	16	180	347
09:00	48	12	8	8	1	4	10	91	115	8	22	7	1	10	118	281
09:15	60	14	9	3	3	1	5	95	82	11	15	3	0	6	66	183
09:30	40	23	13	7	1	4	6	94	82	12	16	6	0	6	53	175
09:45	63	16	15	5	2	3	8	112	70	17	21	4	2	6	30	150
10:00	35	21	10	8	0	2	6	82	58	16	28	2	0	4	22	130
10:15	50	18	14	4	1	1	4	92	64	19	25	14	0	3	11	136
10:30	53	23	20	3	0	1	3	103	57	13	23	7	1	3	11	115
10:45	51	21	21	8	2	2	3	108	61	15	25	9	1	4	13	128
11:00	46	25	12	5	1	0	8	97	64	15	22	6	0	1	14	122
11:15	48	20	19	7	1	1	5	101	67	7	22	4	0	2	11	113
11:30	55	14	15	5	2	1	14	106	60	13	25	7	2	2	13	122
11:45	48	17	18	4	1	2	7	97	63	10	27	6	1	6	6	119
12:00	60	20	18	6	2	3	2	111	85	11	17	4	1	2	9	129
12:15	60	14	22	2	2	0	4	104	71	8	21	5	0	4	16	125
12:30	59	19	21	6	0	5	3	113	72	22	25	4	0	1	5	129
12:45	63	19	13	7	2	3	6	113	72	13	12	2	2	3	12	116
13:00	72	11	23	5	2	2	9	124	66	18	16	3	1	2	7	113
13:15	72	9	14	4	0	2	9	110	75	10	15	3	0	1	9	113
13:30	82	17	18	4	1	3	13	138	68	14	13	5	2	1	5	108
13:45	59	19	16	4	1	2	11	112	72	19	20	6	3	3	11	134
14:00	68	12	27	3	2	3	16	131	71	16	21	4	0	2	13	127
14:15	67	18	16	7	0	4	22	134	77	10	19	3	2	1	9	121
14:30	67	13	17	3	3	4	11	118	66	10	11	3	1	2	12	105
14:45	57	13	24	0	6	7	11	118	69	16	11	7	2	1	12	118
15:00	65	16	15	0	1	4	22	123	50	15	21	4	2	3	10	105
15:15	70	13	24	4	0	0	9	120	56	17	9	4	1	1	13	101
15:30	65	11	20	2	3	2	20	123	75	16	12	2	1	4	14	124
15:45	87	7	11	2	4	6	25	142	58	20	13	2	1	2	14	110
16:00	55	7	19	3	1	5	35	125	56	14	11	3	1	1	8	94
16:15	107	7	26	1	9	8	47	205	98	14	10	0	1	5	19	147
16:30	108	9	22	0	4	7	51	201	92	15	17	3	1	5	14	147
16:45	115	9	15	2	4	12	65	222	85	16	13	1	0	2	17	134
17:00	110	12	13	1	6	10	81	233	69	11	18	1	4	3	14	120
17:15	121	4	9	1	4	9	129	277	96	10	8	1	1	5	22	143
17:30	137	10	17	2	0	22	122	310	66	15	10	0	2	7	22	122
17:45	112	8	9	1	2	6	132	270	96	17	9	2	0	2	16	142
18:00	117	10	12	2	0	8	118	267	70	19	2	3	1	3	10	108
18:15	123	6	11	3	2	6	115	266	109	16	10	1	1	4	3	144
18:30	99	16	9	1	0	4	72	201	69	19	9	0	1	3	10	111
18:45	98	11	9	0	0	5	71	194	70	15	7	0	0	0	11	103
25.75	3401	656	728	173	102	186	1382	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	To Arm C - Oriel Street Upper							Veh. Total	From Arm C - Oriel Street Upper							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	63	2	11	5	0	0	1	82	5	0	4	1	1	0	0	11
07:15	60	8	15	1	2	2	3	91	9	4	2	0	0	0	0	15
07:30	75	3	14	5	1	1	10	109	10	2	2	0	0	0	2	16
07:45	73	1	14	0	0	3	1	92	8	1	6	1	1	0	0	17
08:00	83	1	14	3	4	0	3	108	5	2	4	0	0	0	0	11
08:15	82	5	5	2	1	4	12	111	6	7	1	1	0	0	0	15
08:30	76	2	8	1	2	2	20	111	8	3	2	0	1	1	1	16
08:45	103	2	13	3	1	3	21	146	11	5	2	0	0	1	0	19
09:00	85	7	9	3	1	0	10	115	15	5	3	0	1	1	2	27
09:15	87	5	11	2	3	3	5	116	13	1	3	2	0	0	0	19
09:30	55	9	11	0	0	2	5	82	5	5	4	0	0	0	0	14
09:45	40	5	9	1	2	0	4	61	11	1	3	0	0	0	0	15
10:00	25	7	13	0	3	1	3	52	5	1	4	1	0	0	1	12
10:15	22	3	15	3	4	1	2	50	8	4	5	0	1	0	2	20
10:30	21	3	8	2	2	0	0	36	9	7	3	1	0	0	2	22
10:45	27	2	9	1	1	0	4	44	8	7	6	3	1	0	0	25
11:00	22	6	8	3	1	0	0	40	13	6	2	0	0	0	0	21
11:15	21	2	5	0	1	0	0	29	15	5	3	2	0	1	0	26
11:30	17	4	7	1	2	1	1	33	8	6	6	1	0	1	4	26
11:45	17	3	10	1	0	2	1	34	11	7	2	0	0	1	1	22
12:00	25	2	5	0	1	1	0	34	12	5	7	1	0	0	0	25
12:15	27	3	7	1	1	2	2	43	20	5	4	0	0	0	0	29
12:30	17	6	8	3	0	1	2	37	22	3	7	2	0	1	0	35
12:45	19	3	6	0	1	1	1	31	14	6	1	1	0	0	1	23
13:00	15	1	5	2	1	1	1	26	19	6	2	2	1	1	0	31
13:15	18	4	3	1	2	0	1	29	23	4	4	1	0	0	2	34
13:30	19	2	5	1	2	0	1	30	20	2	5	2	0	0	0	29
13:45	20	3	7	1	2	2	0	35	21	6	3	1	0	0	1	32
14:00	20	2	6	0	2	0	1	31	21	2	4	0	0	1	1	29
14:15	21	2	7	1	3	0	0	34	15	4	7	0	0	0	2	28
14:30	18	2	2	0	1	0	4	27	18	6	7	0	1	0	5	37
14:45	23	3	3	2	2	1	3	37	13	4	6	1	0	0	0	24
15:00	15	8	5	1	2	1	0	32	20	7	6	1	0	0	2	36
15:15	17	6	8	0	4	1	3	39	19	3	5	1	0	0	1	29
15:30	23	4	6	0	2	2	0	37	30	2	6	1	0	0	2	41
15:45	11	6	7	0	1	0	1	26	32	6	5	0	0	0	1	44
16:00	17	4	9	0	2	0	0	32	31	3	12	0	0	0	5	51
16:15	26	3	6	1	1	1	0	38	39	4	11	1	0	1	4	60
16:30	22	6	4	0	0	2	1	35	41	0	5	0	0	1	8	55
16:45	23	6	7	0	1	1	5	43	54	1	4	0	1	1	3	64
17:00	26	5	1	0	2	0	4	38	51	6	9	0	0	4	6	76
17:15	30	2	3	0	2	3	8	48	61	5	6	0	1	1	10	84
17:30	33	7	3	1	1	2	3	50	43	6	7	0	0	2	11	69
17:45	24	8	2	0	1	0	3	38	43	3	4	3	0	1	8	62
18:00	16	5	1	0	3	0	1	26	50	5	3	0	0	0	11	69
18:15	32	9	4	1	1	0	2	49	42	1	5	0	0	0	10	58
18:30	16	9	3	0	2	2	1	33	39	4	2	0	0	0	11	56
18:45	20	1	4	0	1	0	2	28	30	5	1	0	0	1	5	42
Total	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!

Site No. 3
Location Oriel Street Lower / R101(N) / Oriel Street Upper / R101(S)
Date 04 October 2018

Time	To Arm D - R101(S)							Veh. Total	From Arm D - R101(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	95	2	32	2	0	1	49	181	71	8	13	3	2	2	6	105
07:15	75	2	25	4	0	4	57	167	95	10	17	7	2	1	4	136
07:30	78	2	20	2	0	7	81	190	84	11	19	4	2	1	9	130
07:45	75	3	17	3	0	4	94	196	75	9	14	4	2	3	10	117
08:00	63	4	14	1	0	5	94	181	82	12	26	4	12	0	8	144
08:15	61	11	11	6	0	12	145	246	73	10	7	6	4	2	9	111
08:30	65	7	10	1	1	13	160	257	62	5	9	3	8	1	15	103
08:45	60	12	8	1	0	13	160	254	88	12	16	6	3	2	13	140
09:00	65	7	14	5	0	10	110	211	73	13	7	9	1	4	9	116
09:15	53	9	9	2	0	5	62	140	111	16	12	2	5	3	5	154
09:30	59	8	16	5	0	5	50	143	67	23	19	7	1	5	7	129
09:45	51	11	16	2	1	6	26	113	74	15	18	5	3	3	8	126
10:00	49	13	22	1	0	3	19	107	45	24	12	6	3	2	5	97
10:15	59	17	20	12	0	3	10	121	61	15	19	5	4	2	3	109
10:30	52	13	16	6	1	3	13	104	62	20	21	2	2	1	3	111
10:45	54	14	19	9	0	4	11	111	59	15	19	9	1	2	4	109
11:00	61	13	20	6	0	1	15	116	54	24	16	7	2	0	8	111
11:15	59	6	21	3	0	2	10	101	47	15	20	5	2	0	5	94
11:30	51	13	22	5	2	2	13	108	53	12	14	4	4	1	11	99
11:45	54	11	23	7	1	4	6	106	50	15	21	5	1	1	8	101
12:00	68	10	15	6	1	1	10	111	60	16	16	5	3	3	1	104
12:15	62	7	20	5	0	2	14	110	58	11	22	2	3	0	4	100
12:30	64	20	22	4	0	1	5	116	49	19	18	6	0	5	5	102
12:45	63	13	10	2	2	2	8	100	60	16	16	7	3	3	5	110
13:00	68	20	18	4	1	1	6	118	68	9	27	5	3	1	9	122
13:15	71	12	13	3	0	1	9	109	65	11	12	4	1	2	9	104
13:30	58	13	9	6	1	1	5	93	71	16	16	4	2	3	14	126
13:45	65	17	18	5	2	2	12	121	52	14	19	5	2	3	11	106
14:00	62	14	19	4	0	2	13	114	58	11	29	3	4	2	14	121
14:15	70	9	15	3	1	1	8	107	66	14	13	7	2	4	22	128
14:30	57	12	10	3	2	2	12	98	61	11	12	3	4	4	11	106
14:45	55	16	12	6	1	0	12	102	51	12	21	2	7	7	11	111
15:00	48	12	20	6	1	1	10	98	55	14	14	1	3	4	21	112
15:15	51	13	7	5	1	0	10	87	66	12	24	4	4	0	8	118
15:30	71	14	13	3	0	2	14	117	54	11	21	2	4	2	18	112
15:45	60	15	13	2	1	2	13	106	65	2	13	2	5	6	22	115
16:00	63	14	13	2	1	1	9	103	43	9	19	3	3	5	31	113
16:15	92	15	9	1	1	5	18	141	89	6	23	2	10	8	43	181
16:30	90	11	15	3	1	3	13	136	84	11	19	0	4	6	44	168
16:45	86	13	9	1	1	2	18	130	82	11	16	2	5	12	63	191
17:00	68	9	22	1	3	4	14	121	79	9	8	1	7	6	75	185
17:15	88	11	10	1	2	3	20	135	85	2	6	1	6	9	123	232
17:30	60	10	7	0	1	5	22	105	116	6	11	3	0	20	113	269
17:45	91	11	8	3	0	3	15	131	86	8	6	0	3	6	126	235
18:00	71	16	6	3	1	3	9	109	83	6	12	2	3	8	110	224
18:15	98	11	10	0	1	4	3	127	107	9	12	3	3	6	107	247
18:30	71	13	7	0	1	2	12	106	78	15	8	1	2	5	66	175
18:45	66	14	3	0	0	0	10	93	83	7	10	0	1	4	68	173
Total	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!

Site No. 4
Location R101(N) / Guild Street / R101(E)
Date 04 October 2018

Time	A to C - R101(N) to R101(E)							Veh. Total	A to B - R101(N) to Guild Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	12	2	9	1	0	0	4	28	78	2	20	0	0	3	40	143
07:15	20	1	9	1	0	1	0	32	54	2	20	4	0	2	60	142
07:30	10	1	5	0	0	1	5	22	59	0	14	2	0	5	72	152
07:45	26	0	5	1	0	1	9	42	46	2	11	1	0	3	83	146
08:00	17	0	4	0	0	0	2	23	48	4	10	2	0	4	85	153
08:15	23	2	5	2	0	0	3	35	47	8	6	2	0	13	140	216
08:30	21	2	4	2	1	0	10	40	42	5	8	1	0	12	150	218
08:45	20	3	3	1	0	1	5	33	31	9	4	0	0	11	149	204
09:00	18	1	3	1	0	0	12	35	47	6	8	3	0	11	105	180
09:15	15	2	2	1	0	1	9	30	32	4	11	2	0	4	62	115
09:30	15	2	6	3	0	0	1	27	41	8	9	2	0	4	46	110
09:45	13	7	2	0	1	1	2	26	47	5	15	2	0	3	26	98
10:00	8	5	1	0	0	0	0	14	38	6	20	0	0	5	15	84
10:15	18	1	8	5	0	0	0	32	42	15	10	7	0	3	9	86
10:30	12	2	8	4	1	1	2	30	41	10	10	3	0	1	10	75
10:45	19	5	4	2	0	0	1	31	39	11	13	7	0	6	10	86
11:00	20	8	8	4	0	1	2	43	40	6	12	1	0	1	12	72
11:15	12	1	5	3	1	0	1	23	45	5	17	1	0	2	9	79
11:30	18	3	11	1	1	1	0	35	33	10	10	4	0	2	10	69
11:45	20	1	10	1	0	0	0	32	36	8	12	5	1	3	4	69
12:00	12	1	5	4	1	1	0	24	51	11	8	3	0	1	9	83
12:15	24	3	0	1	0	0	1	29	30	4	18	2	0	2	12	68
12:30	24	4	8	6	0	0	2	44	41	16	13	0	0	1	6	77
12:45	19	1	3	2	0	0	0	25	40	12	8	1	2	2	8	73
13:00	32	4	9	2	1	0	0	48	43	14	8	2	0	0	3	70
13:15	32	2	3	2	0	0	0	39	35	12	12	1	0	2	5	67
13:30	24	5	1	5	1	1	0	37	38	9	7	0	1	1	6	62
13:45	23	3	6	2	1	1	2	38	45	14	9	3	0	2	11	84
14:00	20	3	10	2	0	0	0	35	41	12	11	2	0	2	13	81
14:15	19	0	7	1	0	0	0	27	49	9	8	2	1	1	7	77
14:30	15	6	2	2	1	0	1	27	49	6	8	1	1	1	8	74
14:45	17	4	5	1	1	0	1	29	38	11	6	5	0	0	8	68
15:00	13	4	8	3	1	0	1	30	28	8	9	3	0	2	8	58
15:15	24	3	7	4	1	0	2	41	34	9	3	2	0	1	4	53
15:30	28	2	11	1	0	0	2	44	39	12	3	2	0	2	7	65
15:45	18	4	7	2	0	2	1	34	41	13	7	0	2	0	7	70
16:00	31	6	9	1	0	0	4	51	36	7	3	1	1	1	6	55
16:15	44	7	6	0	0	2	5	64	48	8	2	1	1	4	8	72
16:30	36	2	7	1	1	0	1	48	55	10	8	1	0	2	10	86
16:45	28	3	2	2	1	3	3	42	53	10	6	0	0	0	14	83
17:00	33	3	7	1	1	1	2	48	38	7	13	0	1	1	9	69
17:15	42	5	3	0	1	2	1	54	45	6	5	1	1	1	17	76
17:30	38	4	6	0	1	1	3	53	30	5	4	0	0	6	18	63
17:45	45	4	4	1	0	1	4	59	42	8	4	2	0	2	8	66
18:00	28	3	4	2	1	1	1	40	37	11	0	1	0	2	11	62
18:15	36	2	6	0	0	0	1	45	53	9	5	0	1	3	4	75
18:30	31	2	3	0	1	1	1	39	47	13	5	0	0	1	9	75
18:45	30	2	2	0	0	0	5	39	44	12	3	0	0	0	6	65
Total	1103	141	263	81	20	26	112	1746	2056	404	436	85	13	141	1339	4474

Site No. 4
Location R101(N) / Guild Street / R101(E)
Date 04 October 2018

Time	B to A - Guild Street to R101(N)							Veh. Total	B to C - Guild Street to R101(E)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	39	6	6	2	2	1	4	60	33	4	3	0	0	0	1	41
07:15	34	10	11	0	0	0	2	57	30	2	6	2	0	0	0	40
07:30	35	8	10	1	0	0	7	61	41	2	13	1	0	0	1	58
07:45	26	6	3	1	0	3	7	46	34	6	4	2	0	1	1	48
08:00	23	10	9	1	0	2	7	52	27	6	7	3	1	0	0	44
08:15	39	6	3	3	1	1	7	60	38	5	6	1	0	0	0	50
08:30	25	5	7	1	0	1	5	44	27	9	8	0	0	2	2	48
08:45	28	11	3	3	2	2	7	56	23	8	4	2	1	3	3	44
09:00	23	9	3	3	0	3	8	49	26	7	8	1	1	2	0	45
09:15	27	11	3	0	0	0	4	45	23	6	4	1	0	0	0	34
09:30	28	15	6	4	1	4	6	64	33	14	7	2	0	0	0	56
09:45	36	13	6	1	0	1	4	61	21	5	10	1	0	2	0	39
10:00	20	15	6	6	0	2	6	55	23	9	4	3	0	0	0	39
10:15	32	14	8	3	1	1	1	60	23	8	6	0	0	0	0	37
10:30	37	17	11	2	0	1	1	69	26	14	12	3	0	1	0	56
10:45	39	18	8	6	0	1	3	75	31	12	6	3	0	1	0	53
11:00	26	17	6	4	0	0	2	55	23	10	12	1	0	1	0	47
11:15	21	13	12	3	1	0	0	50	22	12	14	5	0	0	0	53
11:30	35	9	7	1	1	1	10	64	29	6	19	1	0	2	0	57
11:45	32	11	9	1	3	1	0	57	27	9	13	2	0	5	1	57
12:00	35	14	12	3	0	3	1	68	30	11	12	4	0	3	0	60
12:15	34	12	12	0	0	0	4	62	35	10	14	0	0	2	0	61
12:30	31	15	14	4	0	4	4	72	28	6	6	5	0	0	0	45
12:45	34	12	7	3	0	3	5	64	41	6	10	5	0	1	0	63
13:00	37	8	14	4	1	1	5	70	29	10	8	2	0	4	0	53
13:15	38	5	8	0	0	1	9	61	33	12	12	1	0	1	0	59
13:30	41	16	5	2	1	1	8	74	32	10	6	3	0	0	1	52
13:45	24	11	9	5	0	2	8	59	36	11	12	1	0	0	0	60
14:00	32	12	18	1	0	1	10	74	36	15	13	2	0	0	0	66
14:15	37	11	8	3	0	2	10	71	32	9	15	2	0	1	0	59
14:30	31	10	5	2	0	2	11	61	48	13	10	2	0	0	0	73
14:45	33	8	13	1	3	6	9	73	34	13	13	3	1	1	0	65
15:00	32	6	10	0	1	4	19	72	35	19	9	3	0	0	0	66
15:15	41	10	18	3	0	0	6	78	40	14	22	1	1	0	2	80
15:30	23	8	12	2	1	0	16	62	56	13	11	1	1	3	1	86
15:45	42	3	9	2	0	6	24	86	45	20	16	2	3	0	0	86
16:00	26	7	9	0	0	4	24	70	29	16	13	0	0	0	1	59
16:15	48	4	17	0	1	9	42	121	50	14	8	2	0	3	0	77
16:30	49	7	11	0	0	5	39	111	59	14	13	2	0	4	1	93
16:45	43	8	10	2	0	10	59	132	38	7	15	0	0	3	1	64
17:00	30	9	7	1	0	6	61	114	49	8	11	1	0	1	1	71
17:15	41	2	3	1	0	8	108	163	61	15	5	0	0	3	3	87
17:30	61	3	6	2	0	18	100	190	50	5	14	2	1	4	1	77
17:45	49	5	5	0	0	6	121	186	42	4	2	0	0	2	2	52
18:00	56	5	7	2	0	8	108	186	43	10	3	2	0	5	2	65
18:15	59	3	8	1	1	3	95	170	34	8	3	2	0	2	3	52
18:30	53	10	6	1	0	5	52	127	45	6	2	1	0	1	2	57
18:45	44	2	7	0	0	4	57	114	29	4	2	0	0	3	1	39
25.75	1709	450	407	91	21	147	1106	3931	1679	457	446	83	10	67	31	2773

Site No. 4
Location R101(N) / Guild Street / R101(E)
Date 04 October 2018

Time	C to B - R101(E) to Guild Street							Veh. Total	C to A - R101(E) to R101(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	1	0	1	0	0	0	0	2	35	1	8	2	0	1	1	48
07:15	4	0	1	0	0	0	0	5	61	1	5	6	2	0	1	76
07:30	4	0	1	0	0	0	0	5	46	3	8	4	2	1	0	64
07:45	1	0	0	0	0	0	0	1	49	2	10	2	2	0	1	66
08:00	5	0	1	0	0	0	0	6	63	2	18	3	12	0	1	99
08:15	1	0	0	0	0	0	0	1	37	3	4	3	3	1	0	51
08:30	0	0	1	0	0	1	0	2	39	0	3	2	8	0	7	59
08:45	7	0	0	0	0	3	0	10	52	1	11	3	1	0	3	71
09:00	3	0	0	0	0	0	0	3	54	5	4	6	1	1	1	72
09:15	6	0	0	0	0	0	0	6	79	4	9	3	5	3	1	104
09:30	2	0	0	0	0	1	1	4	43	8	12	2	0	1	1	67
09:45	9	1	2	0	0	0	0	12	37	2	14	4	3	1	1	62
10:00	0	0	1	0	0	0	0	1	25	9	6	1	3	0	0	44
10:15	2	1	0	0	0	0	0	3	30	1	10	1	3	1	0	46
10:30	3	0	0	0	0	0	0	3	23	3	9	0	2	0	0	37
10:45	7	0	1	0	0	0	0	8	19	1	10	3	1	1	0	35
11:00	6	0	0	0	0	0	0	6	24	3	10	2	2	0	1	42
11:15	2	0	1	0	0	0	0	3	23	2	11	2	1	0	0	39
11:30	2	0	1	0	0	0	0	3	18	2	6	3	3	0	0	32
11:45	6	0	1	0	0	0	0	7	19	6	12	4	0	0	3	44
12:00	2	1	1	0	0	0	1	5	19	1	4	4	3	0	1	32
12:15	0	0	0	0	0	0	0	0	20	1	10	1	3	0	2	37
12:30	0	0	0	0	0	1	0	1	23	2	3	1	0	1	2	32
12:45	6	0	5	0	0	0	0	11	27	4	10	4	3	0	2	50
13:00	1	0	0	0	0	0	0	1	26	2	13	2	3	0	2	48
13:15	5	0	1	0	0	0	0	6	24	5	5	3	1	1	3	42
13:30	4	1	1	0	0	0	0	6	25	2	10	2	1	2	3	45
13:45	2	1	3	0	0	0	0	6	29	1	10	1	3	2	1	47
14:00	2	1	0	0	0	0	0	3	19	1	10	1	3	1	7	42
14:15	3	0	1	0	0	0	0	4	31	3	7	4	3	2	8	58
14:30	2	1	0	0	0	0	0	3	29	1	6	1	2	2	2	43
14:45	2	0	0	0	0	0	0	2	17	3	8	1	4	1	0	34
15:00	6	0	1	0	0	0	0	7	28	7	6	1	2	0	0	44
15:15	0	0	0	0	0	0	0	0	17	2	7	2	4	0	1	33
15:30	8	0	1	0	0	0	0	9	25	3	7	0	4	1	3	43
15:45	3	0	3	0	0	0	0	6	28	0	8	1	5	0	0	42
16:00	4	2	2	0	0	0	0	8	13	1	8	2	3	1	4	32
16:15	3	1	0	1	0	0	0	5	33	3	7	2	8	0	3	56
16:30	3	1	1	0	0	0	0	5	30	4	6	0	5	1	3	49
16:45	4	0	0	0	0	0	0	4	39	3	7	0	6	2	4	61
17:00	3	0	0	0	0	0	0	3	40	1	1	0	5	0	12	59
17:15	8	1	0	0	0	0	0	9	40	1	3	0	6	1	8	59
17:30	5	0	0	0	0	0	0	5	54	2	6	1	0	1	13	77
17:45	4	0	0	0	0	0	0	4	46	5	1	0	3	0	8	63
18:00	7	2	0	0	0	0	0	9	30	2	5	1	3	0	7	48
18:15	2	0	0	0	0	0	0	2	47	3	3	1	2	3	9	68
18:30	1	0	0	0	0	0	0	1	25	6	2	0	2	0	5	40
18:45	4	0	0	0	0	0	0	4	41	3	3	0	2	0	9	58
25.75	165	14	32	1	0	6	2	220	1601	131	356	92	143	33	144	2500

Site No. 4
Location R101(N) / Guild Street / R101(E)
Date 04 October 2018

Time	To Arm A - R101(N)							Veh. Total	From Arm A - R101(N)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	74	7	14	4	2	2	5	108	90	4	29	1	0	3	44	171
07:15	95	11	16	6	2	0	3	133	74	3	29	5	0	3	60	174
07:30	81	11	18	5	2	1	7	125	69	1	19	2	0	6	77	174
07:45	75	8	13	3	2	3	8	112	72	2	16	2	0	4	92	188
08:00	86	12	27	4	12	2	8	151	65	4	14	2	0	4	87	176
08:15	76	9	7	6	4	2	7	111	70	10	11	4	0	13	143	251
08:30	64	5	10	3	8	1	12	103	63	7	12	3	1	12	160	258
08:45	80	12	14	6	3	2	10	127	51	12	7	1	0	12	154	237
09:00	77	14	7	9	1	4	9	121	65	7	11	4	0	11	117	215
09:15	106	15	12	3	5	3	5	149	47	6	13	3	0	5	71	145
09:30	71	23	18	6	1	5	7	131	56	10	15	5	0	4	47	137
09:45	73	15	20	5	3	2	5	123	60	12	17	2	1	4	28	124
10:00	45	24	12	7	3	2	6	99	46	11	21	0	0	5	15	98
10:15	62	15	18	4	4	2	1	106	60	16	18	12	0	3	9	118
10:30	60	20	20	2	2	1	1	106	53	12	18	7	1	2	12	105
10:45	58	19	18	9	1	2	3	110	58	16	17	9	0	6	11	117
11:00	50	20	16	6	2	0	3	97	60	14	20	5	0	2	14	115
11:15	44	15	23	5	2	0	0	89	57	6	22	4	1	2	10	102
11:30	53	11	13	4	4	1	10	96	51	13	21	5	1	3	10	104
11:45	51	17	21	5	3	1	3	101	56	9	22	6	1	3	4	101
12:00	54	15	16	7	3	3	2	100	63	12	13	7	1	2	9	107
12:15	54	13	22	1	3	0	6	99	54	7	18	3	0	2	13	97
12:30	54	17	17	5	0	5	6	104	65	20	21	6	0	1	8	121
12:45	61	16	17	7	3	3	7	114	59	13	11	3	2	2	8	98
13:00	63	10	27	6	4	1	7	118	75	18	17	4	1	0	3	118
13:15	62	10	13	3	1	2	12	103	67	14	15	3	0	2	5	106
13:30	66	18	15	4	2	3	11	119	62	14	8	5	2	2	6	99
13:45	53	12	19	6	3	4	9	106	68	17	15	5	1	3	13	122
14:00	51	13	28	2	3	2	17	116	61	15	21	4	0	2	13	116
14:15	68	14	15	7	3	4	18	129	68	9	15	3	1	1	7	104
14:30	60	11	11	3	2	4	13	104	64	12	10	3	2	1	9	101
14:45	50	11	21	2	7	7	9	107	55	15	11	6	1	0	9	97
15:00	60	13	16	1	3	4	19	116	41	12	17	6	1	2	9	88
15:15	58	12	25	5	4	0	7	111	58	12	10	6	1	1	6	94
15:30	48	11	19	2	5	1	19	105	67	14	14	3	0	2	9	109
15:45	70	3	17	3	5	6	24	128	59	17	14	2	2	2	8	104
16:00	39	8	17	2	3	5	28	102	67	13	12	2	1	1	10	106
16:15	81	7	24	2	9	9	45	177	92	15	8	1	1	6	13	136
16:30	79	11	17	0	5	6	42	160	91	12	15	2	1	2	11	134
16:45	82	11	17	2	6	12	63	193	81	13	8	2	1	3	17	125
17:00	70	10	8	1	5	6	73	173	71	10	20	1	2	2	11	117
17:15	81	3	6	1	6	9	116	222	87	11	8	1	2	3	18	130
17:30	115	5	12	3	0	19	113	267	68	9	10	0	1	7	21	116
17:45	95	10	6	0	3	6	129	249	87	12	8	3	0	3	12	125
18:00	86	7	12	3	3	8	115	234	65	14	4	3	1	3	12	102
18:15	106	6	11	2	3	6	104	238	89	11	11	0	1	3	5	120
18:30	78	16	8	1	2	5	57	167	78	15	8	0	1	2	10	114
18:45	85	5	10	0	2	4	66	172	74	14	5	0	0	0	11	104
25.75	3310	581	763	183	164	180	1250	6431	3159	545	699	166	33	167	1451	6220

Site No. 4
Location R101(N) / Guild Street / R101(E)
Date 04 October 2018

Time	To Arm B - Guild Street							Veh. Total	From Arm B - Guild Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	79	2	21	0	0	3	40	145	72	10	9	2	2	1	5	101
07:15	58	2	21	4	0	2	60	147	64	12	17	2	0	0	2	97
07:30	63	0	15	2	0	5	72	157	76	10	23	2	0	0	8	119
07:45	47	2	11	1	0	3	83	147	60	12	7	3	0	4	8	94
08:00	53	4	11	2	0	4	85	159	50	16	16	4	1	2	7	96
08:15	48	8	6	2	0	13	140	217	77	11	9	4	1	1	7	110
08:30	42	5	9	1	0	13	150	220	52	14	15	1	0	3	7	92
08:45	38	9	4	0	0	14	149	214	51	19	7	5	3	5	10	100
09:00	50	6	8	3	0	11	105	183	49	16	11	4	1	5	8	94
09:15	38	4	11	2	0	4	62	121	50	17	7	1	0	0	4	79
09:30	43	8	9	2	0	5	47	114	61	29	13	6	1	4	6	120
09:45	56	6	17	2	0	3	26	110	57	18	16	2	0	3	4	100
10:00	38	6	21	0	0	5	15	85	43	24	10	9	0	2	6	94
10:15	44	16	10	7	0	3	9	89	55	22	14	3	1	1	1	97
10:30	44	10	10	3	0	1	10	78	63	31	23	5	0	2	1	125
10:45	46	11	14	7	0	6	10	94	70	30	14	9	0	2	3	128
11:00	46	6	12	1	0	1	12	78	49	27	18	5	0	1	2	102
11:15	47	5	18	1	0	2	9	82	43	25	26	8	1	0	0	103
11:30	35	10	11	4	0	2	10	72	64	15	26	2	1	3	10	121
11:45	42	8	13	5	1	3	4	76	59	20	22	3	3	6	1	114
12:00	53	12	9	3	0	1	10	88	65	25	24	7	0	6	1	128
12:15	30	4	18	2	0	2	12	68	69	22	26	0	0	2	4	123
12:30	41	16	13	0	0	2	6	78	59	21	20	9	0	4	4	117
12:45	46	12	13	1	2	2	8	84	75	18	17	8	0	4	5	127
13:00	44	14	8	2	0	0	3	71	66	18	22	6	1	5	5	123
13:15	40	12	13	1	0	2	5	73	71	17	20	1	0	2	9	120
13:30	42	10	8	0	1	1	6	68	73	26	11	5	1	1	9	126
13:45	47	15	12	3	0	2	11	90	60	22	21	6	0	2	8	119
14:00	43	13	11	2	0	2	13	84	68	27	31	3	0	1	10	140
14:15	52	9	9	2	1	1	7	81	69	20	23	5	0	3	10	130
14:30	51	7	8	1	1	1	8	77	79	23	15	4	0	2	11	134
14:45	40	11	6	5	0	0	8	70	67	21	26	4	4	7	9	138
15:00	34	8	10	3	0	2	8	65	67	25	19	3	1	4	19	138
15:15	34	9	3	2	0	1	4	53	81	24	40	4	1	0	8	158
15:30	47	12	4	2	0	2	7	74	79	21	23	3	2	3	17	148
15:45	44	13	10	0	2	0	7	76	87	23	25	4	3	6	24	172
16:00	40	9	5	1	1	1	6	63	55	23	22	0	0	4	25	129
16:15	51	9	2	2	1	4	8	77	98	18	25	2	1	12	42	198
16:30	58	11	9	1	0	2	10	91	108	21	24	2	0	9	40	204
16:45	57	10	6	0	0	0	14	87	81	15	25	2	0	13	60	196
17:00	41	7	13	0	1	1	9	72	79	17	18	2	0	7	62	185
17:15	53	7	5	1	1	1	17	85	102	17	8	1	0	11	111	250
17:30	35	5	4	0	0	6	18	68	111	8	20	4	1	22	101	267
17:45	46	8	4	2	0	2	8	70	91	9	7	0	0	8	123	238
18:00	44	13	0	1	0	2	11	71	99	15	10	4	0	13	110	251
18:15	55	9	5	0	1	3	4	77	93	11	11	3	1	5	98	222
18:30	48	13	5	0	0	1	9	76	98	16	8	2	0	6	54	184
18:45	48	12	3	0	0	0	6	69	73	6	9	0	0	7	58	153
25.75	2221	418	468	86	13	147	1341	4694	3388	907	853	174	31	214	1137	6704

Site No. 4
Location R101(N) / Guild Street / R101(E)
Date 04 October 2018

Time	To Arm C - R101(E)							Veh. Total	From Arm C - R101(E)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	45	6	12	1	0	0	5	69	36	1	9	2	0	1	1	50
07:15	50	3	15	3	0	1	0	72	65	1	6	6	2	0	1	81
07:30	51	3	18	1	0	1	6	80	50	3	9	4	2	1	0	69
07:45	60	6	9	3	0	2	10	90	50	2	10	2	2	0	1	67
08:00	44	6	11	3	1	0	2	67	68	2	19	3	12	0	1	105
08:15	61	7	11	3	0	0	3	85	38	3	4	3	3	1	0	52
08:30	48	11	12	2	1	2	12	88	39	0	4	2	8	1	7	61
08:45	43	11	7	3	1	4	8	77	59	1	11	3	1	3	3	81
09:00	44	8	11	2	1	2	12	80	57	5	4	6	1	1	1	75
09:15	38	8	6	2	0	1	9	64	85	4	9	3	5	3	1	110
09:30	48	16	13	5	0	0	1	83	45	8	12	2	0	2	2	71
09:45	34	12	12	1	1	3	2	65	46	3	16	4	3	1	1	74
10:00	31	14	5	3	0	0	0	53	25	9	7	1	3	0	0	45
10:15	41	9	14	5	0	0	0	69	32	2	10	1	3	1	0	49
10:30	38	16	20	7	1	2	2	86	26	3	9	0	2	0	0	40
10:45	50	17	10	5	0	1	1	84	26	1	11	3	1	1	0	43
11:00	43	18	20	5	0	2	2	90	30	3	10	2	2	0	1	48
11:15	34	13	19	8	1	0	1	76	25	2	12	2	1	0	0	42
11:30	47	9	30	2	1	3	0	92	20	2	7	3	3	0	0	35
11:45	47	10	23	3	0	5	1	89	25	6	13	4	0	0	3	51
12:00	42	12	17	8	1	4	0	84	21	2	5	4	3	0	2	37
12:15	59	13	14	1	0	2	1	90	20	1	10	1	3	0	2	37
12:30	52	10	14	11	0	0	2	89	23	2	3	1	0	2	2	33
12:45	60	7	13	7	0	1	0	88	33	4	15	4	3	0	2	61
13:00	61	14	17	4	1	4	0	101	27	2	13	2	3	0	2	49
13:15	65	14	15	3	0	1	0	98	29	5	6	3	1	1	3	48
13:30	56	15	7	8	1	1	1	89	29	3	11	2	1	2	3	51
13:45	59	14	18	3	1	1	2	98	31	2	13	1	3	2	1	53
14:00	56	18	23	4	0	0	0	101	21	2	10	1	3	1	7	45
14:15	51	9	22	3	0	1	0	86	34	3	8	4	3	2	8	62
14:30	63	19	12	4	1	0	1	100	31	2	6	1	2	2	2	46
14:45	51	17	18	4	2	1	1	94	19	3	8	1	4	1	0	36
15:00	48	23	17	6	1	0	1	96	34	7	7	1	2	0	0	51
15:15	64	17	29	5	2	0	4	121	17	2	7	2	4	0	1	33
15:30	84	15	22	2	1	3	3	130	33	3	8	0	4	1	3	52
15:45	63	24	23	4	3	2	1	120	31	0	11	1	5	0	0	48
16:00	60	22	22	1	0	0	5	110	17	3	10	2	3	1	4	40
16:15	94	21	14	2	0	5	5	141	36	4	7	3	8	0	3	61
16:30	95	16	20	3	1	4	2	141	33	5	7	0	5	1	3	54
16:45	66	10	17	2	1	6	4	106	43	3	7	0	6	2	4	65
17:00	82	11	18	2	1	2	3	119	43	1	1	0	5	0	12	62
17:15	103	20	8	0	1	5	4	141	48	2	3	0	6	1	8	68
17:30	88	9	20	2	2	5	4	130	59	2	6	1	0	1	13	82
17:45	87	8	6	1	0	3	6	111	50	5	1	0	3	0	8	67
18:00	71	13	7	4	1	6	3	105	37	4	5	1	3	0	7	57
18:15	70	10	9	2	0	2	4	97	49	3	3	1	2	3	9	70
18:30	76	8	5	1	1	2	3	96	26	6	2	0	2	0	5	41
18:45	59	6	4	0	0	3	6	78	45	3	3	0	2	0	9	62
25.75	2782	598	709	164	30	93	143	4519	1766	145	388	93	143	39	146	#REF!

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	A to D - Guild Street to North Wall Quay(E)							Veh. Total	A to C - Guild Street to Samuel Beckett Bridge							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	2	2	0	0	0	0	2	6	76	4	19	4	3	4	41	151
07:15	0	1	1	0	1	3	0	6	78	2	21	3	0	3	56	163
07:30	0	1	1	0	0	0	1	3	67	2	13	7	0	3	89	181
07:45	1	2	1	0	0	0	3	7	76	3	16	3	0	6	94	198
08:00	2	0	2	1	0	0	4	9	64	2	12	4	2	2	95	181
08:15	5	0	1	0	0	0	0	6	69	7	17	4	0	13	140	250
08:30	0	0	0	2	0	0	2	4	50	7	10	2	1	12	143	225
08:45	3	0	0	0	0	0	0	3	55	9	16	2	2	15	169	268
09:00	3	2	1	1	0	2	0	9	51	7	6	1	0	9	104	178
09:15	3	1	1	1	0	0	0	6	58	8	16	4	1	4	75	166
09:30	6	1	1	0	0	0	2	10	70	13	10	6	0	5	47	151
09:45	2	1	1	0	0	0	3	7	69	12	19	6	2	4	31	143
10:00	2	0	3	1	0	0	1	7	47	14	20	4	2	4	15	106
10:15	3	0	0	1	1	0	1	6	52	14	18	5	0	4	11	104
10:30	1	3	0	0	0	0	0	4	53	20	12	5	1	3	11	105
10:45	1	4	3	2	0	0	0	10	46	17	19	6	0	5	3	96
11:00	4	1	0	0	0	0	0	5	57	14	18	4	1	3	11	108
11:15	11	0	1	0	0	0	1	13	52	9	14	3	1	3	8	90
11:30	4	2	6	1	1	0	0	14	42	11	15	3	1	2	0	74
11:45	2	1	2	1	0	0	0	6	53	14	14	7	2	3	6	99
12:00	2	5	6	2	1	0	1	17	59	13	11	3	0	2	0	88
12:15	10	1	0	2	0	0	1	14	41	8	19	3	0	4	13	88
12:30	8	0	2	1	0	0	0	11	55	22	18	3	2	2	9	111
12:45	3	0	3	0	0	0	0	6	55	11	16	0	0	3	6	91
13:00	9	1	0	1	0	0	0	11	61	20	13	2	3	0	8	107
13:15	7	3	2	2	1	0	0	15	49	18	19	0	0	3	7	96
13:30	5	3	2	0	0	0	0	10	52	9	10	1	2	2	5	81
13:45	4	0	0	1	0	0	0	5	56	16	13	2	2	3	12	104
14:00	5	2	1	1	0	0	0	9	58	16	16	4	1	2	11	108
14:15	7	2	0	2	0	1	0	12	59	10	12	4	1	1	10	97
14:30	6	2	0	0	0	0	0	8	75	10	10	2	2	1	11	111
14:45	9	1	1	2	0	0	0	13	45	12	12	1	0	0	8	78
15:00	9	2	4	2	1	0	0	18	43	7	13	2	1	3	13	82
15:15	7	3	1	2	0	1	0	14	45	12	8	2	0	2	6	75
15:30	9	1	4	1	0	0	3	18	56	17	6	3	2	2	6	92
15:45	8	6	4	0	0	0	0	18	62	6	15	0	0	1	9	93
16:00	6	0	1	0	0	0	2	9	63	14	13	1	2	2	16	111
16:15	5	2	1	2	0	0	0	10	76	13	8	1	0	7	12	117
16:30	9	0	2	0	0	1	1	13	75	11	12	0	3	3	15	119
16:45	7	0	0	0	0	0	4	11	81	8	8	1	0	5	25	128
17:00	1	1	0	0	0	0	0	2	79	15	10	0	4	3	27	138
17:15	9	0	1	0	0	0	2	12	80	9	5	2	1	2	34	133
17:30	12	1	0	0	0	0	0	13	78	6	5	1	1	5	44	140
17:45	8	1	0	0	0	0	2	11	61	6	4	3	0	7	38	119
18:00	12	1	0	1	0	0	0	14	97	12	3	0	1	3	28	144
18:15	16	1	1	0	0	2	0	20	63	12	5	0	1	4	25	110
18:30	7	3	1	0	0	0	4	15	82	10	6	0	2	3	21	124
18:45	12	1	0	0	0	0	2	15	70	9	4	1	0	2	13	99
Total	267	65	62	33	6	10	42	485	2961	521	599	125	50	184	1581	6021

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	A to B - Guild Street to North Wall Quay(W)							Veh. Total	B to A - North Wall Quay(W) to Guild Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	2	0	0	0	0	0	0	2	4	0	0	0	1	0	2	7
07:15	3	0	0	0	0	0	0	3	3	2	0	0	0	0	2	7
07:30	1	1	0	0	0	0	3	5	2	0	1	0	0	0	4	7
07:45	5	1	0	0	0	0	5	11	3	0	1	1	0	0	5	10
08:00	2	2	0	2	0	0	0	6	1	3	1	0	1	0	0	6
08:15	4	3	0	0	0	0	4	11	2	0	0	0	0	0	2	4
08:30	2	1	1	1	0	0	1	6	1	1	0	0	0	0	5	7
08:45	2	1	1	0	0	0	1	5	3	1	0	0	2	0	1	7
09:00	3	0	1	0	0	0	0	4	1	3	0	0	0	0	3	7
09:15	1	0	0	0	0	0	2	3	0	1	2	0	0	0	1	4
09:30	4	2	2	0	0	0	2	10	6	6	0	0	0	0	1	13
09:45	2	1	1	1	0	0	0	5	1	0	0	0	0	0	2	3
10:00	8	1	1	2	0	0	0	12	3	6	0	1	0	0	3	13
10:15	3	1	0	1	0	1	1	7	4	0	1	1	0	1	0	7
10:30	4	2	2	3	0	0	0	11	5	2	2	0	0	0	1	10
10:45	4	5	1	0	0	0	0	10	3	3	1	0	0	0	3	10
11:00	6	0	1	1	0	0	0	8	4	3	1	1	0	1	2	12
11:15	5	2	4	0	0	1	0	12	2	2	1	0	0	1	2	8
11:30	4	0	1	0	0	0	0	5	3	3	3	0	0	1	2	12
11:45	3	1	4	1	1	0	1	11	0	2	1	0	0	0	2	5
12:00	6	1	5	1	0	0	0	13	1	3	1	0	0	1	2	8
12:15	5	2	2	0	0	1	0	10	4	5	2	0	0	0	2	13
12:30	4	1	0	0	0	0	0	5	2	1	2	0	0	0	0	5
12:45	4	1	0	0	0	0	1	6	2	0	2	0	0	0	1	5
13:00	3	2	1	1	0	1	1	9	3	1	1	0	0	0	1	6
13:15	6	1	3	0	0	0	0	10	2	1	0	0	0	0	2	5
13:30	2	4	1	0	0	0	1	8	3	2	0	0	0	1	2	8
13:45	2	0	1	0	0	0	1	4	1	1	2	0	0	0	1	5
14:00	2	0	0	0	0	0	0	2	5	4	3	0	0	0	1	13
14:15	3	1	1	0	0	1	0	6	5	2	0	0	0	0	1	8
14:30	2	1	3	0	0	0	1	7	2	0	1	0	0	0	0	3
14:45	3	1	3	0	1	0	1	9	3	2	0	0	0	0	1	6
15:00	5	2	0	0	0	0	0	7	5	2	0	1	0	0	0	8
15:15	6	1	0	1	0	0	0	8	3	3	1	0	0	0	0	7
15:30	3	0	1	0	0	0	0	4	4	1	0	0	0	0	1	6
15:45	4	0	3	0	0	1	1	9	6	0	1	0	0	0	0	7
16:00	3	0	2	0	0	0	1	6	1	5	2	0	0	0	0	8
16:15	3	1	1	2	0	1	2	10	1	0	1	0	0	0	0	2
16:30	6	0	0	0	0	0	1	7	6	1	0	0	0	1	1	9
16:45	3	0	0	0	0	0	1	4	4	1	0	0	0	1	1	7
17:00	11	0	1	0	0	0	2	14	1	2	0	0	0	0	0	3
17:15	7	0	1	0	0	2	2	12	3	0	0	0	0	0	1	4
17:30	6	1	0	0	0	0	2	9	3	0	1	0	0	0	2	6
17:45	6	0	0	0	0	2	2	10	5	1	0	0	0	0	2	8
18:00	3	1	0	0	0	2	1	7	4	3	0	0	0	0	1	8
18:15	2	1	1	1	0	1	0	6	5	2	0	0	0	0	2	9
18:30	9	2	0	0	0	1	0	12	7	3	0	0	0	0	3	13
18:45	1	4	0	0	0	1	3	9	3	2	0	0	0	1	2	8
25.75	188	52	50	18	2	16	44	370	145	86	35	5	4	9	73	357

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	B to D - North Wall Quay(W) to North Wall Quay(E)							Veh. Total	B to C - North Wall Quay(W) to Samuel Beckett Bridge							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	55	1	11	9	13	1	5	95	39	4	7	0	1	1	2	54
07:15	35	9	7	6	12	1	12	82	32	8	8	3	1	3	6	61
07:30	36	12	10	5	12	6	29	110	23	4	10	0	0	3	5	45
07:45	39	11	6	0	8	5	19	88	35	4	10	2	4	1	5	61
08:00	49	8	5	3	15	3	32	115	24	6	4	1	2	1	10	48
08:15	30	3	7	7	19	7	25	98	33	5	2	1	2	3	14	60
08:30	31	8	4	2	14	2	40	101	26	6	6	0	3	4	16	61
08:45	28	8	3	1	19	4	30	93	29	6	6	1	1	4	9	56
09:00	25	12	7	3	25	4	23	99	26	10	2	2	2	3	12	57
09:15	19	13	5	2	21	4	16	80	15	10	4	1	7	0	6	43
09:30	21	12	6	2	18	3	20	82	21	20	7	1	4	0	6	59
09:45	27	8	6	10	18	0	9	78	10	18	4	1	8	1	2	44
10:00	35	10	5	1	19	3	4	77	7	13	3	2	3	0	1	29
10:15	18	13	7	7	10	2	4	61	17	9	7	3	1	1	3	41
10:30	14	13	10	8	14	2	3	64	15	10	7	1	4	1	0	38
10:45	27	13	7	7	14	0	3	71	23	13	7	1	3	0	4	51
11:00	19	16	8	3	14	0	2	62	17	10	10	2	5	1	0	45
11:15	30	7	11	6	14	1	9	78	15	10	11	1	3	1	1	42
11:30	20	7	10	12	8	2	6	65	24	11	4	1	4	0	1	45
11:45	36	10	10	4	13	1	4	78	22	8	8	3	3	1	1	46
12:00	28	9	10	6	10	1	5	69	23	10	8	1	3	2	0	47
12:15	27	14	5	5	10	1	4	66	25	11	2	2	2	2	0	44
12:30	26	8	5	4	9	1	3	56	23	9	7	1	3	2	3	48
12:45	43	7	13	12	8	1	9	93	18	14	4	1	3	1	0	41
13:00	40	15	7	6	13	1	4	86	28	11	3	1	5	2	1	51
13:15	33	9	14	7	11	3	6	83	13	9	5	0	2	1	1	31
13:30	35	10	15	5	11	1	6	83	25	6	7	3	4	1	3	49
13:45	33	14	4	2	14	2	5	74	20	12	2	0	3	2	3	42
14:00	36	13	10	7	10	3	4	83	26	7	7	0	3	1	2	46
14:15	31	17	3	5	8	1	7	72	30	11	4	0	2	0	3	50
14:30	32	8	10	4	9	1	5	69	15	7	2	0	3	0	4	31
14:45	43	10	7	7	8	4	7	86	17	13	4	0	2	0	1	37
15:00	43	16	8	11	13	1	3	95	25	8	3	0	4	1	0	41
15:15	42	14	16	9	8	2	1	92	23	7	0	2	5	1	1	39
15:30	56	18	17	2	12	3	7	115	12	18	1	0	3	0	0	34
15:45	37	9	15	5	12	1	2	81	8	15	3	0	2	0	1	29
16:00	49	22	6	2	10	1	10	100	34	12	4	0	3	1	1	55
16:15	45	13	11	2	17	3	5	96	23	7	2	0	2	3	1	38
16:30	48	8	9	4	20	1	13	103	25	7	0	0	2	4	1	39
16:45	46	10	7	2	13	1	17	96	39	5	2	0	2	3	2	53
17:00	42	14	4	2	14	1	16	93	11	4	0	1	2	1	4	23
17:15	24	17	5	1	19	1	11	78	20	3	0	1	1	1	6	32
17:30	28	9	2	7	29	2	25	102	16	10	2	0	2	2	10	42
17:45	32	9	3	4	28	4	29	109	25	3	0	0	4	2	10	44
18:00	35	10	5	4	28	5	19	106	28	10	1	0	2	4	3	48
18:15	33	11	1	0	18	2	15	80	23	5	1	1	2	2	15	49
18:30	44	11	4	4	13	5	5	86	32	16	1	0	3	0	5	57
18:45	30	7	2	0	16	1	9	65	20	17	0	0	5	1	4	47
25.75	1635	526	363	227	691	105	547	4094	1080	452	202	41	140	69	189	2173

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	C to B - Samuel Beckett Bridge to North Wall Quay(W)							Veh. Total	C to A - Samuel Beckett Bridge to Guild Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	31	0	5	0	1	0	0	37	76	0	7	1	2	1	6	93
07:15	36	1	2	0	0	1	7	47	82	3	11	1	0	0	2	99
07:30	32	5	5	0	0	1	5	48	68	7	10	0	0	0	11	96
07:45	41	3	3	1	0	2	3	53	75	14	4	1	0	5	16	115
08:00	33	1	1	1	0	3	4	43	60	12	5	2	1	1	15	96
08:15	39	3	0	0	1	3	7	53	83	6	5	1	0	1	13	109
08:30	34	5	0	1	0	0	19	59	48	12	8	0	0	3	16	87
08:45	33	2	2	0	0	4	17	58	56	9	5	2	1	5	23	101
09:00	35	9	1	1	0	2	14	62	44	12	5	2	2	6	19	90
09:15	32	7	4	1	0	2	8	54	53	17	8	1	0	1	11	91
09:30	29	6	4	0	0	0	4	43	47	18	8	3	1	3	9	89
09:45	31	6	4	2	0	2	4	49	57	22	14	3	0	2	6	104
10:00	12	9	1	2	0	0	2	26	41	16	8	3	0	2	5	75
10:15	16	23	1	0	0	2	2	44	52	23	12	3	0	2	4	96
10:30	17	12	1	0	0	1	2	33	62	20	17	0	0	1	3	103
10:45	20	9	7	0	0	0	0	36	51	19	9	4	0	3	1	87
11:00	13	14	6	1	0	1	1	36	50	20	11	3	0	1	3	88
11:15	11	14	5	0	0	0	0	30	33	18	19	6	1	0	5	82
11:30	13	9	2	0	0	0	0	24	56	14	18	0	0	4	6	98
11:45	10	10	2	2	0	0	1	25	60	18	17	3	0	2	2	102
12:00	11	7	5	0	0	0	3	26	60	25	18	6	0	5	3	117
12:15	14	3	7	1	0	2	0	27	52	12	18	1	0	1	2	86
12:30	14	12	6	0	1	0	2	35	58	14	15	9	1	2	3	102
12:45	12	11	4	1	0	1	5	34	54	14	10	6	0	3	4	91
13:00	10	4	2	0	0	0	3	19	57	21	19	5	0	5	3	110
13:15	6	6	7	0	0	2	4	25	59	14	13	1	0	2	2	91
13:30	9	8	3	1	0	2	6	29	63	20	12	3	1	2	6	107
13:45	13	7	10	1	0	0	4	35	47	21	19	3	2	3	9	104
14:00	11	6	4	0	0	1	2	24	59	24	18	3	0	0	5	109
14:15	5	3	7	1	0	1	1	18	58	11	19	2	0	2	8	100
14:30	17	10	2	1	0	1	1	32	69	23	11	4	2	2	7	118
14:45	15	11	3	2	0	0	3	34	57	12	25	2	1	5	6	108
15:00	10	5	2	0	0	0	2	19	56	18	10	2	0	3	7	96
15:15	10	5	3	0	0	0	1	19	67	22	35	3	1	0	4	132
15:30	13	9	5	0	0	0	4	31	62	17	19	2	1	2	9	112
15:45	12	8	10	0	0	1	2	33	54	17	26	4	3	6	16	126
16:00	16	3	4	3	0	1	3	30	54	21	22	1	0	4	9	111
16:15	17	5	3	1	0	3	2	31	70	11	13	3	0	6	18	121
16:30	17	2	4	0	0	1	3	27	72	15	15	1	0	8	19	130
16:45	14	3	6	0	0	1	6	30	59	9	19	3	0	11	31	132
17:00	23	10	3	0	0	0	8	44	53	10	13	1	0	4	34	115
17:15	24	3	4	0	0	2	5	38	70	13	6	1	0	9	61	160
17:30	21	1	1	2	0	2	4	31	70	6	15	2	0	18	68	179
17:45	20	1	2	1	0	3	3	30	69	8	7	0	0	9	65	158
18:00	26	4	2	1	0	2	5	40	64	8	12	3	1	9	62	159
18:15	7	3	1	0	0	1	2	14	44	10	5	2	0	5	42	108
18:30	18	4	2	0	0	3	4	31	67	8	7	0	0	5	34	121
18:45	22	3	1	0	1	1	3	31	52	3	9	0	0	5	26	95
25.75	925	305	169	28	4	55	191	1677	2830	687	631	112	21	179	739	5199

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	C to D - Samuel Beckett Bridge to North Wall Quay(E)							Veh. Total	D to C - North Wall Quay(E) to Samuel Beckett Bridge							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	0	0	0	0	0	0	1	1	6	0	7	1	0	0	7	21
07:15	0	0	0	0	0	0	5	5	10	1	2	0	2	0	10	25
07:30	0	0	0	0	0	0	3	3	14	0	1	1	0	0	11	27
07:45	0	0	0	0	0	0	8	8	9	0	4	0	0	0	21	34
08:00	0	0	0	0	0	0	9	9	5	0	4	0	0	0	25	34
08:15	0	0	0	0	0	0	7	7	9	0	0	1	0	1	48	59
08:30	0	0	0	0	0	0	9	9	11	1	0	0	1	0	46	59
08:45	0	0	0	0	0	0	7	7	7	3	0	1	0	2	43	56
09:00	0	0	0	0	0	0	5	5	7	3	1	0	0	1	38	50
09:15	0	0	0	0	0	0	3	3	7	1	3	1	0	0	19	31
09:30	0	0	0	0	0	0	4	4	11	3	4	1	0	2	21	42
09:45	0	0	0	0	0	0	3	3	5	0	1	0	0	0	7	13
10:00	0	1	0	0	0	0	2	3	3	3	3	0	0	0	5	14
10:15	0	0	0	0	0	0	3	3	6	2	3	0	0	0	4	15
10:30	0	0	0	0	0	0	3	3	3	1	0	0	0	0	5	9
10:45	0	0	0	0	0	0	1	1	4	0	3	0	0	0	2	9
11:00	0	0	0	0	0	0	0	0	6	2	2	0	0	0	1	11
11:15	0	0	0	0	0	0	0	0	4	0	2	1	0	0	1	8
11:30	2	0	0	0	0	0	2	4	5	1	0	0	0	0	4	10
11:45	0	0	0	1	0	0	0	1	1	1	2	1	0	0	1	6
12:00	0	0	0	0	0	0	0	0	1	0	2	0	0	0	8	11
12:15	0	0	0	0	0	0	0	0	6	0	3	0	0	0	0	9
12:30	0	0	0	0	0	0	0	0	8	2	1	0	0	0	4	15
12:45	0	0	0	0	0	0	3	3	4	0	2	0	0	0	11	17
13:00	0	0	0	0	0	0	2	2	6	1	3	2	0	0	5	17
13:15	0	0	0	0	0	0	2	2	3	0	1	0	0	1	7	12
13:30	0	0	0	0	0	0	3	3	7	1	2	0	0	0	8	18
13:45	0	0	0	0	0	0	1	1	3	0	2	0	0	2	9	16
14:00	0	0	0	0	0	0	0	0	3	0	1	0	0	0	5	9
14:15	0	0	0	0	0	0	1	1	4	1	0	0	0	0	2	7
14:30	0	0	0	0	0	0	1	1	5	0	3	1	0	1	7	17
14:45	0	0	0	0	0	0	2	2	2	1	0	0	0	0	5	8
15:00	0	0	0	0	0	0	1	1	2	3	3	0	0	0	5	13
15:15	0	0	0	0	0	0	0	0	5	2	0	0	1	1	5	14
15:30	0	0	0	0	0	0	2	2	4	1	2	0	0	1	9	17
15:45	1	0	0	0	0	0	0	1	5	1	1	1	1	1	3	13
16:00	0	0	0	0	0	0	3	3	5	2	0	0	0	1	19	27
16:15	0	0	0	0	0	0	2	2	7	1	1	0	0	0	13	22
16:30	1	0	0	0	0	0	2	3	6	1	0	0	0	0	22	29
16:45	0	0	0	0	0	0	5	5	3	0	2	1	0	0	32	38
17:00	0	1	0	0	0	0	2	3	2	1	0	0	0	0	37	40
17:15	0	0	0	0	0	0	1	1	3	1	0	0	0	3	50	57
17:30	0	0	0	0	0	0	3	3	3	2	1	0	0	2	56	64
17:45	0	0	0	0	0	0	4	4	5	3	1	0	0	1	59	69
18:00	0	0	0	0	0	0	3	3	2	2	0	0	0	2	43	49
18:15	0	0	0	0	0	0	2	2	5	1	0	0	0	0	24	30
18:30	0	0	0	0	0	0	3	3	4	1	0	0	0	0	20	25
18:45	0	0	1	0	0	0	1	2	2	1	1	0	0	0	19	23
25.75	4	2	1	1	0	0	124	132	248	51	74	13	5	22	806	1219

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	D to B - North Wall Quay(E) to North Wall Quay(W)							Veh. Total	D to A - North Wall Quay(E) to Guild Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	22	0	9	10	8	0	1	50	1	0	0	0	0	0	1	2
07:15	15	2	11	5	7	0	4	44	0	0	0	1	0	0	0	1
07:30	30	4	9	8	13	1	9	74	0	0	0	0	0	0	1	1
07:45	18	3	7	5	12	0	5	50	1	0	0	2	0	0	0	3
08:00	27	3	8	6	18	2	5	69	0	0	0	0	0	1	0	1
08:15	21	4	5	3	18	1	13	65	0	0	0	1	0	0	0	1
08:30	39	5	9	4	18	1	13	89	1	0	0	0	0	0	1	2
08:45	32	3	8	7	20	2	13	85	3	1	0	0	0	0	0	4
09:00	30	7	7	10	16	1	15	86	0	0	0	0	0	0	2	2
09:15	35	8	5	10	11	0	6	75	0	0	0	0	0	0	0	0
09:30	23	6	4	4	10	0	9	56	0	2	0	0	0	0	0	2
09:45	18	3	4	5	12	0	4	46	2	1	0	1	0	0	0	4
10:00	18	5	6	1	10	0	6	46	1	1	1	1	0	0	1	5
10:15	40	10	5	4	10	1	2	72	1	0	0	0	0	0	1	2
10:30	34	6	5	6	5	1	7	64	1	1	1	1	0	0	0	4
10:45	33	16	2	4	12	1	2	70	1	1	0	1	0	0	0	3
11:00	22	4	6	5	8	1	6	52	1	1	0	2	0	0	0	4
11:15	24	6	7	3	7	1	1	49	1	0	0	0	0	0	0	1
11:30	30	4	6	7	8	2	4	61	0	1	0	0	0	0	0	1
11:45	29	3	8	6	9	0	3	58	2	0	0	0	0	0	0	2
12:00	27	11	3	3	5	2	8	59	1	0	0	1	0	0	0	2
12:15	25	7	8	5	7	1	5	58	1	0	0	0	0	0	0	1
12:30	35	7	4	5	8	1	3	63	0	0	0	0	0	0	1	1
12:45	35	7	8	3	12	2	8	75	3	1	0	0	0	0	0	4
13:00	31	4	6	6	6	1	6	60	0	0	1	0	0	0	1	2
13:15	37	8	7	4	6	1	9	72	1	0	1	0	0	0	0	2
13:30	23	8	4	6	7	0	5	53	1	1	0	0	0	0	0	2
13:45	31	7	6	6	9	2	3	64	1	0	1	1	0	0	0	3
14:00	20	5	5	3	6	0	2	41	2	0	0	1	0	0	0	3
14:15	27	12	6	5	8	2	3	63	0	1	0	1	0	0	0	2
14:30	19	7	6	3	4	0	6	45	0	1	0	0	0	0	0	1
14:45	14	5	6	2	8	1	6	42	0	2	0	0	1	0	1	4
15:00	39	9	5	3	13	1	5	75	0	3	0	0	0	0	0	3
15:15	21	3	2	4	5	1	4	40	0	0	0	0	0	0	0	0
15:30	28	12	7	3	10	0	3	63	1	1	0	0	1	0	0	3
15:45	24	3	6	1	15	2	6	57	0	1	0	0	0	0	0	1
16:00	13	8	5	3	9	0	21	59	2	1	0	0	0	1	0	4
16:15	18	6	7	4	10	1	10	56	0	0	0	0	0	0	0	0
16:30	22	5	2	1	9	2	15	56	1	0	0	0	0	1	0	2
16:45	26	5	3	1	16	3	14	68	0	0	0	0	0	0	0	0
17:00	21	7	2	3	5	4	33	75	3	1	0	0	0	0	0	4
17:15	19	4	1	1	11	5	26	67	1	1	0	0	0	0	0	2
17:30	26	8	4	1	11	4	22	76	2	0	1	0	0	1	1	5
17:45	38	5	3	0	16	3	21	86	0	1	0	0	0	0	0	1
18:00	31	9	5	1	6	1	28	81	0	0	0	1	0	0	0	1
18:15	28	7	3	3	15	5	12	73	3	0	0	1	0	0	0	4
18:30	29	20	3	2	11	2	14	81	0	1	0	0	0	0	0	1
18:45	31	7	7	2	12	2	10	71	1	0	1	0	0	0	0	2
25.75	1278	308	265	197	492	64	436	3040	40	25	7	16	2	4	11	105

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	To Arm A - Guild Street							Veh. Total	From Arm A - Guild Street							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	81	0	7	1	3	1	9	102	80	6	19	4	3	4	43	159
07:15	85	5	11	2	0	0	4	107	81	3	22	3	1	6	56	172
07:30	70	7	11	0	0	0	16	104	68	4	14	7	0	3	93	189
07:45	79	14	5	4	0	5	21	128	82	6	17	3	0	6	102	216
08:00	61	15	6	2	2	2	15	103	68	4	14	7	2	2	99	196
08:15	85	6	5	2	0	1	15	114	78	10	18	4	0	13	144	267
08:30	50	13	8	0	0	3	22	96	52	8	11	5	1	12	146	235
08:45	62	11	5	2	3	5	24	112	60	10	17	2	2	15	170	276
09:00	45	15	5	2	2	6	24	99	57	9	8	2	0	11	104	191
09:15	53	18	10	1	0	1	12	95	62	9	17	5	1	4	77	175
09:30	53	26	8	3	1	3	10	104	80	16	13	6	0	5	51	171
09:45	60	23	14	4	0	2	8	111	73	14	21	7	2	4	34	155
10:00	45	23	9	5	0	2	9	93	57	15	24	7	2	4	16	125
10:15	57	23	13	4	0	3	5	105	58	15	18	7	1	5	13	117
10:30	68	23	20	1	0	1	4	117	58	25	14	8	1	3	11	120
10:45	55	23	10	5	0	3	4	100	51	26	23	8	0	5	3	116
11:00	55	24	12	6	0	2	5	104	67	15	19	5	1	3	11	121
11:15	36	20	20	6	1	1	7	91	68	11	19	3	1	4	9	115
11:30	59	18	21	0	0	5	8	111	50	13	22	4	2	2	0	93
11:45	62	20	18	3	0	2	4	109	58	16	20	9	3	3	7	116
12:00	62	28	19	7	0	6	5	127	67	19	22	6	1	2	1	118
12:15	57	17	20	1	0	1	4	100	56	11	21	5	0	5	14	112
12:30	60	15	17	9	1	2	4	108	67	23	20	4	2	2	9	127
12:45	59	15	12	6	0	3	5	100	62	12	19	0	0	3	7	103
13:00	60	22	21	5	0	5	5	118	73	23	14	4	3	1	9	127
13:15	62	15	14	1	0	2	4	98	62	22	24	2	1	3	7	121
13:30	67	23	12	3	1	3	8	117	59	16	13	1	2	2	6	99
13:45	49	22	22	4	2	3	10	112	62	16	14	3	2	3	13	113
14:00	66	28	21	4	0	0	6	125	65	18	17	5	1	2	11	119
14:15	63	14	19	3	0	2	9	110	69	13	13	6	1	3	10	115
14:30	71	24	12	4	2	2	7	122	83	13	13	2	2	1	12	126
14:45	60	16	25	2	2	5	8	118	57	14	16	3	1	0	9	100
15:00	61	23	10	3	0	3	7	107	57	11	17	4	2	3	13	107
15:15	70	25	36	3	1	0	4	139	58	16	9	5	0	3	6	97
15:30	67	19	19	2	2	2	10	121	68	18	11	4	2	2	9	114
15:45	60	18	27	4	3	6	16	134	74	12	22	0	0	2	10	120
16:00	57	27	24	1	0	5	9	123	72	14	16	1	2	2	19	126
16:15	71	11	14	3	0	6	18	123	84	16	10	5	0	8	14	137
16:30	79	16	15	1	0	10	20	141	90	11	14	0	3	4	17	139
16:45	63	10	19	3	0	12	32	139	91	8	8	1	0	5	30	143
17:00	57	13	13	1	0	4	34	122	91	16	11	0	4	3	29	154
17:15	74	14	6	1	0	9	62	166	96	9	7	2	1	4	38	157
17:30	75	6	17	2	0	19	71	190	96	8	5	1	1	5	46	162
17:45	74	10	7	0	0	9	67	167	75	7	4	3	0	9	42	140
18:00	68	11	12	4	1	9	63	168	112	14	3	1	1	5	29	165
18:15	52	12	5	3	0	5	44	121	81	14	7	1	1	7	25	136
18:30	74	12	7	0	0	5	37	135	98	15	7	0	2	4	25	151
18:45	56	5	10	0	0	6	28	105	83	14	4	1	0	3	18	123
25.75	3015	798	673	133	27	192	823	5661	3416	638	711	176	58	210	1667	6876

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	To Arm B - North Wall Quay(W)							Veh. Total	From Arm B - North Wall Quay(W)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	55	0	14	10	9	0	1	89	98	5	18	9	15	2	9	156
07:15	54	3	13	5	7	1	11	94	70	19	15	9	13	4	20	150
07:30	63	10	14	8	13	2	17	127	61	16	21	5	12	9	38	162
07:45	64	7	10	6	12	2	13	114	77	15	17	3	12	6	29	159
08:00	62	6	9	9	18	5	9	118	74	17	10	4	18	4	42	169
08:15	64	10	5	3	19	4	24	129	65	8	9	8	21	10	41	162
08:30	75	11	10	6	18	1	33	154	58	15	10	2	17	6	61	169
08:45	67	6	11	7	20	6	31	148	60	15	9	2	22	8	40	156
09:00	68	16	9	11	16	3	29	152	52	25	9	5	27	7	38	163
09:15	68	15	9	11	11	2	16	132	34	24	11	3	28	4	23	127
09:30	56	14	10	4	10	0	15	109	48	38	13	3	22	3	27	154
09:45	51	10	9	8	12	2	8	100	38	26	10	11	26	1	13	125
10:00	38	15	8	5	10	0	8	84	45	29	8	4	22	3	8	119
10:15	59	34	6	5	10	4	5	123	39	22	15	11	11	4	7	109
10:30	55	20	8	9	5	2	9	108	34	25	19	9	18	3	4	112
10:45	57	30	10	4	12	1	2	116	53	29	15	8	17	0	10	132
11:00	41	18	13	7	8	2	7	96	40	29	19	6	19	2	4	119
11:15	40	22	16	3	7	2	1	91	47	19	23	7	17	3	12	128
11:30	47	13	9	7	8	2	4	90	47	21	17	13	12	3	9	122
11:45	42	14	14	9	10	0	5	94	58	20	19	7	16	2	7	129
12:00	44	19	13	4	5	2	11	98	52	22	19	7	13	4	7	124
12:15	44	12	17	6	7	4	5	95	56	30	9	7	12	3	6	123
12:30	53	20	10	5	9	1	5	103	51	18	14	5	12	3	6	109
12:45	51	19	12	4	12	3	14	115	63	21	19	13	11	2	10	139
13:00	44	10	9	7	6	2	10	88	71	27	11	7	18	3	6	143
13:15	49	15	17	4	6	3	13	107	48	19	19	7	13	4	9	119
13:30	34	20	8	7	7	2	12	90	63	18	22	8	15	3	11	140
13:45	46	14	17	7	9	2	8	103	54	27	8	2	17	4	9	121
14:00	33	11	9	3	6	1	4	67	67	24	20	7	13	4	7	142
14:15	35	16	14	6	8	4	4	87	66	30	7	5	10	1	11	130
14:30	38	18	11	4	4	1	8	84	49	15	13	4	12	1	9	103
14:45	32	17	12	4	9	1	10	85	63	25	11	7	10	4	9	129
15:00	54	16	7	3	13	1	7	101	73	26	11	12	17	2	3	144
15:15	37	9	5	5	5	1	5	67	68	24	17	11	13	3	2	138
15:30	44	21	13	3	10	0	7	98	72	37	18	2	15	3	8	155
15:45	40	11	19	1	15	4	9	99	51	24	19	5	14	1	3	117
16:00	32	11	11	6	9	1	25	95	84	39	12	2	13	2	11	163
16:15	38	12	11	7	10	5	14	97	69	20	14	2	19	6	6	136
16:30	45	7	6	1	9	3	19	90	79	16	9	4	22	6	15	151
16:45	43	8	9	1	16	4	21	102	89	16	9	2	15	5	20	156
17:00	55	17	6	3	5	4	43	133	54	20	4	3	16	2	20	119
17:15	50	7	6	1	11	9	33	117	47	20	5	2	20	2	18	114
17:30	53	10	5	3	11	6	28	116	47	19	5	7	31	4	37	150
17:45	64	6	5	1	16	8	26	126	62	13	3	4	32	6	41	161
18:00	60	14	7	2	6	5	34	128	67	23	6	4	30	9	23	162
18:15	37	11	5	4	15	7	14	93	61	18	2	1	20	4	32	138
18:30	56	26	5	2	11	6	18	124	83	30	5	4	16	5	13	156
18:45	54	14	8	2	13	4	16	111	53	26	2	0	21	3	15	120
25.75	2391	665	484	243	498	135	671	5087	2860	1064	600	273	835	183	809	6624

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	To Arm C - Samuel Beckett Bridge							Veh. Total	From Arm C - Samuel Beckett Bridge							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	121	8	33	5	4	5	50	226	107	0	12	1	3	1	7	131
07:15	120	11	31	6	3	6	72	249	118	4	13	1	0	1	14	151
07:30	104	6	24	8	0	6	105	253	100	12	15	0	0	1	19	147
07:45	120	7	30	5	4	7	120	293	116	17	7	2	0	7	27	176
08:00	93	8	20	5	4	3	130	263	93	13	6	3	1	4	28	148
08:15	111	12	19	6	2	17	202	369	122	9	5	1	1	4	27	169
08:30	87	14	16	2	5	16	205	345	82	17	8	1	0	3	44	155
08:45	91	18	22	4	3	21	221	380	89	11	7	2	1	9	47	166
09:00	84	20	9	3	2	13	154	285	79	21	6	3	2	8	38	157
09:15	80	19	23	6	8	4	100	240	85	24	12	2	0	3	22	148
09:30	102	36	21	8	4	7	74	252	76	24	12	3	1	3	17	136
09:45	84	30	24	7	10	5	40	200	88	28	18	5	0	4	13	156
10:00	57	30	26	6	5	4	21	149	53	26	9	5	0	2	9	104
10:15	75	25	28	8	1	5	18	160	68	46	13	3	0	4	9	143
10:30	71	31	19	6	5	4	16	152	79	32	18	0	0	2	8	139
10:45	73	30	29	7	3	5	9	156	71	28	16	4	0	3	2	124
11:00	80	26	30	6	6	4	12	164	63	34	17	4	0	2	4	124
11:15	71	19	27	5	4	4	10	140	44	32	24	6	1	0	5	112
11:30	71	23	19	4	5	2	5	129	71	23	20	0	0	4	8	126
11:45	76	23	24	11	5	4	8	151	70	28	19	6	0	2	3	128
12:00	83	23	21	4	3	4	8	146	71	32	23	6	0	5	6	143
12:15	72	19	24	5	2	6	13	141	66	15	25	2	0	3	2	113
12:30	86	33	26	4	5	4	16	174	72	26	21	9	2	2	5	137
12:45	77	25	22	1	3	4	17	149	66	25	14	7	0	4	12	128
13:00	95	32	19	5	8	2	14	175	67	25	21	5	0	5	8	131
13:15	65	27	25	0	2	5	15	139	65	20	20	1	0	4	8	118
13:30	84	16	19	4	6	3	16	148	72	28	15	4	1	4	15	139
13:45	79	28	17	2	5	7	24	162	60	28	29	4	2	3	14	140
14:00	87	23	24	4	4	3	18	163	70	30	22	3	0	1	7	133
14:15	93	22	16	4	3	1	15	154	63	14	26	3	0	3	10	119
14:30	95	17	15	3	5	2	22	159	86	33	13	5	2	3	9	151
14:45	64	26	16	1	2	0	14	123	72	23	28	4	1	5	11	144
15:00	70	18	19	2	5	4	18	136	66	23	12	2	0	3	10	116
15:15	73	21	8	4	6	4	12	128	77	27	38	3	1	0	5	151
15:30	72	36	9	3	5	3	15	143	75	26	24	2	1	2	15	145
15:45	75	22	19	1	3	2	13	135	67	25	36	4	3	7	18	160
16:00	102	28	17	1	5	4	36	193	70	24	26	4	0	5	15	144
16:15	106	21	11	1	2	10	26	177	87	16	16	4	0	9	22	154
16:30	106	19	12	0	5	7	38	187	90	17	19	1	0	9	24	160
16:45	123	13	12	2	2	8	59	219	73	12	25	3	0	12	42	167
17:00	92	20	10	1	6	4	68	201	76	21	16	1	0	4	44	162
17:15	103	13	5	3	2	6	90	222	94	16	10	1	0	11	67	199
17:30	97	18	8	1	3	9	110	246	91	7	16	4	0	20	75	213
17:45	91	12	5	3	4	10	107	232	89	9	9	1	0	12	72	192
18:00	127	24	4	0	3	9	74	241	90	12	14	4	1	11	70	202
18:15	91	18	6	1	3	6	64	189	51	13	6	2	0	6	46	124
18:30	118	27	7	0	5	3	46	206	85	12	9	0	0	8	41	155
18:45	92	27	5	1	5	3	36	169	74	6	11	0	1	6	30	128
25.75	4289	1024	875	179	195	275	2576	9413	3759	994	801	141	#REF!	#REF!	#REF!	#REF!

Site No. 5
Location Guild Street / North Wall Quay(W) / Samuel Beckett Bridge / North Wall Quay(E)
Date 04 October 2018

Time	To Arm D - North Wall Quay(E)							Veh. Total	From Arm D - North Wall Quay(E)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	57	3	11	9	13	1	8	102	29	0	16	11	8	0	9	73
07:15	35	10	8	6	13	4	17	93	25	3	13	6	9	0	14	70
07:30	36	13	11	5	12	6	33	116	44	4	10	9	13	1	21	102
07:45	40	13	7	0	8	5	30	103	28	3	11	7	12	0	26	87
08:00	51	8	7	4	15	3	45	133	32	3	12	6	18	3	30	104
08:15	35	3	8	7	19	7	32	111	30	4	5	5	18	2	61	125
08:30	31	8	4	4	14	2	51	114	51	6	9	4	19	1	60	150
08:45	31	8	3	1	19	4	37	103	42	7	8	8	20	4	56	145
09:00	28	14	8	4	25	6	28	113	37	10	8	10	16	2	55	138
09:15	22	14	6	3	21	4	19	89	42	9	8	11	11	0	25	106
09:30	27	13	7	2	18	3	26	96	34	11	8	5	10	2	30	100
09:45	29	9	7	10	18	0	15	88	25	4	5	6	12	0	11	63
10:00	37	11	8	2	19	3	7	87	22	9	10	2	10	0	12	65
10:15	21	13	7	8	11	2	8	70	47	12	8	4	10	1	7	89
10:30	15	16	10	8	14	2	6	71	38	8	6	7	5	1	12	77
10:45	28	17	10	9	14	0	4	82	38	17	5	5	12	1	4	82
11:00	23	17	8	3	14	0	2	67	29	7	8	7	8	1	7	67
11:15	41	7	12	6	14	1	10	91	29	6	9	4	7	1	2	58
11:30	26	9	16	13	9	2	8	83	35	6	6	7	8	2	8	72
11:45	38	11	12	6	13	1	4	85	32	4	10	7	9	0	4	66
12:00	30	14	16	8	11	1	6	86	29	11	5	4	5	2	16	72
12:15	37	15	5	7	10	1	5	80	32	7	11	5	7	1	5	68
12:30	34	8	7	5	9	1	3	67	43	9	5	5	8	1	8	79
12:45	46	7	16	12	8	1	12	102	42	8	10	3	12	2	19	96
13:00	49	16	7	7	13	1	6	99	37	5	10	8	6	1	12	79
13:15	40	12	16	9	12	3	8	100	41	8	9	4	6	2	16	86
13:30	40	13	17	5	11	1	9	96	31	10	6	6	7	0	13	73
13:45	37	14	4	3	14	2	6	80	35	7	9	7	9	4	12	83
14:00	41	15	11	8	10	3	4	92	25	5	6	4	6	0	7	53
14:15	38	19	3	7	8	2	8	85	31	14	6	6	8	2	5	72
14:30	38	10	10	4	9	1	6	78	24	8	9	4	4	1	13	63
14:45	52	11	8	9	8	4	9	101	16	8	6	2	9	1	12	54
15:00	52	18	12	13	14	1	4	114	41	15	8	3	13	1	10	91
15:15	49	17	17	11	8	3	1	106	26	5	2	4	6	2	9	54
15:30	65	19	21	3	12	3	12	135	33	14	9	3	11	1	12	83
15:45	46	15	19	5	12	1	2	100	29	5	7	2	16	3	9	71
16:00	55	22	7	2	10	1	15	112	20	11	5	3	9	2	40	90
16:15	50	15	12	4	17	3	7	108	25	7	8	4	10	1	23	78
16:30	58	8	11	4	20	2	16	119	29	6	2	1	9	3	37	87
16:45	53	10	7	2	13	1	26	112	29	5	5	2	16	3	46	106
17:00	43	16	4	2	14	1	18	98	26	9	2	3	5	4	70	119
17:15	33	17	6	1	19	1	14	91	23	6	1	1	11	8	76	126
17:30	40	10	2	7	29	2	28	118	31	10	6	1	11	7	79	145
17:45	40	10	3	4	28	4	35	124	43	9	4	0	16	4	80	156
18:00	47	11	5	5	28	5	22	123	33	11	5	2	6	3	71	131
18:15	49	12	2	0	18	4	17	102	36	8	3	4	15	5	36	107
18:30	51	14	5	4	13	5	12	104	33	22	3	2	11	2	34	107
18:45	42	8	3	0	16	1	12	82	34	8	9	2	12	2	29	96
Total	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!

Site No. 6
Location Access Road / Sheriff Street Lower(W) / Sheriff Street Lower(S)
Date 04 October 2018

Time	A to C - Access Road to Sheriff Street Lower(S)							Veh. Total	A to B - Access Road to Sheriff Street Lower(W)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0	2
07:15	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	3
07:45	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
08:00	1	1	1	0	0	0	0	3	1	0	3	0	0	0	0	4
08:15	1	0	1	0	0	0	0	2	0	0	1	0	0	0	0	1
08:30	1	0	1	0	0	0	0	2	0	0	1	0	0	0	0	1
08:45	0	0	2	0	0	0	1	3	1	0	0	0	0	0	0	1
09:00	1	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0
09:15	3	0	2	0	0	0	0	5	1	0	1	0	0	0	0	2
09:30	1	1	2	0	0	0	0	4	1	0	1	0	0	0	0	2
09:45	1	0	2	0	0	0	0	3	2	0	0	1	0	0	0	3
10:00	0	0	4	0	0	0	0	4	0	0	1	0	0	0	0	1
10:15	2	0	1	0	0	0	0	3	2	0	3	0	0	1	0	6
10:30	0	0	1	0	0	0	0	1	1	0	1	1	0	0	1	4
10:45	1	1	0	0	0	0	0	2	5	0	0	0	0	0	0	5
11:00	7	0	1	0	0	0	0	8	1	0	1	0	0	2	0	4
11:15	4	0	3	2	0	0	0	9	2	0	3	0	0	0	0	5
11:30	3	0	1	0	0	0	2	6	2	0	0	0	0	0	0	2
11:45	2	0	1	0	0	0	0	3	1	0	1	0	0	0	0	2
12:00	5	0	4	0	0	0	1	10	2	0	1	0	0	0	0	3
12:15	3	0	2	0	0	0	0	5	2	0	0	0	0	0	0	2
12:30	4	0	3	0	0	0	0	7	2	1	1	0	0	0	0	4
12:45	2	2	2	1	0	0	0	7	1	0	0	0	0	0	0	1
13:00	5	0	1	0	0	0	1	7	2	0	1	0	0	0	0	3
13:15	5	0	2	1	0	0	0	8	3	0	1	1	0	0	0	5
13:30	6	0	1	0	0	0	0	7	0	0	0	1	0	0	0	1
13:45	5	0	4	0	0	0	0	9	1	0	0	0	0	0	0	1
14:00	6	0	2	0	0	0	0	8	1	0	1	0	0	0	0	2
14:15	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	2
14:30	7	0	3	0	0	0	0	10	2	0	0	0	0	0	0	2
14:45	4	1	2	0	0	0	0	7	1	0	1	0	0	0	0	2
15:00	1	0	1	0	0	0	0	2	1	0	1	0	0	0	0	2
15:15	4	0	2	0	0	0	0	6	0	0	1	0	0	0	0	1
15:30	7	0	3	1	0	0	1	12	1	0	0	0	0	0	0	1
15:45	4	0	0	0	0	0	0	4	1	0	0	0	0	0	1	2
16:00	12	0	2	0	0	0	2	16	2	0	3	0	0	0	0	5
16:15	6	0	2	0	0	0	1	9	6	0	0	0	0	0	0	6
16:30	11	0	0	1	0	0	1	13	4	0	0	0	0	0	0	4
16:45	10	0	0	0	0	0	0	10	3	0	0	0	0	0	1	4
17:00	10	0	0	0	0	0	1	11	5	0	0	0	0	0	2	7
17:15	18	0	1	0	0	0	0	19	6	0	0	0	0	0	0	6
17:30	16	0	1	0	0	0	0	17	4	0	1	0	0	0	1	6
17:45	14	0	0	0	0	0	1	15	5	0	0	0	0	0	0	5
18:00	17	0	2	0	0	0	0	19	5	0	0	0	0	0	0	5
18:15	6	0	2	0	0	0	1	9	4	0	0	0	0	0	0	4
18:30	6	0	1	0	0	0	1	8	8	0	0	0	0	0	0	8
18:45	12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
Total	237	8	68	6	0	0	15	334	98	1	30	6	0	3	7	145

Site No. 6
Location Access Road / Sheriff Street Lower(W) / Sheriff Street Lower(S)
Date 04 October 2018

Time	B to A - Sheriff Street Lower(W) to Access Road							Veh. Total	B to C - Sheriff Street Lower(W) to Sheriff Street Lower(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	4	0	1	0	0	0	1	6	10	1	2	1	0	0	0	14
07:15	2	0	1	0	0	0	1	4	4	2	0	0	0	1	0	7
07:30	3	0	0	0	0	0	0	3	10	5	0	0	0	0	1	16
07:45	4	0	1	0	0	0	1	6	12	2	0	0	1	0	1	16
08:00	6	0	0	0	0	0	0	6	6	0	0	0	0	0	2	8
08:15	6	0	3	0	0	0	0	9	5	2	2	0	0	0	1	10
08:30	4	0	2	0	0	0	0	6	12	1	1	0	0	0	4	18
08:45	9	0	1	0	0	0	0	10	18	3	0	1	0	1	2	25
09:00	7	0	0	0	0	0	1	8	12	3	0	1	0	1	2	19
09:15	2	0	0	0	0	0	0	2	5	2	0	0	0	0	0	7
09:30	3	0	0	0	0	0	0	3	11	4	2	0	0	0	1	18
09:45	1	0	1	0	0	0	0	2	6	1	2	0	0	0	1	10
10:00	1	0	0	0	0	0	0	1	4	3	1	1	0	1	0	10
10:15	0	0	0	0	0	0	0	0	3	2	3	1	0	0	0	9
10:30	1	0	1	0	0	0	1	3	4	4	3	0	0	0	0	11
10:45	1	0	0	0	0	0	0	1	5	3	1	0	0	0	0	9
11:00	2	0	1	0	0	0	0	3	3	2	4	0	0	0	0	9
11:15	1	0	0	0	0	0	0	1	0	3	0	0	0	0	0	3
11:30	1	0	0	0	0	0	0	1	3	2	1	0	0	1	0	7
11:45	1	0	0	0	0	0	0	1	0	2	1	1	0	0	1	5
12:00	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	5
12:15	0	0	0	1	0	0	0	1	5	1	1	0	0	0	1	8
12:30	3	0	1	0	0	0	0	4	3	2	3	0	0	0	0	8
12:45	0	0	1	0	0	0	0	1	1	0	1	0	0	0	0	2
13:00	3	0	0	1	0	0	0	4	4	2	1	1	0	0	2	10
13:15	1	0	0	0	0	0	0	1	4	0	2	0	0	0	1	7
13:30	1	0	0	0	0	0	0	1	6	1	3	1	0	0	1	12
13:45	3	0	1	0	0	0	0	4	5	1	1	0	0	0	3	10
14:00	0	0	1	0	0	0	1	2	1	0	0	0	0	0	0	1
14:15	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	4
14:30	0	1	0	0	0	0	0	1	2	2	1	0	0	0	0	5
14:45	1	0	0	0	0	0	0	1	2	1	2	0	0	0	1	6
15:00	0	0	0	0	0	0	0	0	1	2	0	0	1	0	2	6
15:15	1	0	0	0	0	0	0	1	3	3	0	0	0	1	0	7
15:30	0	0	0	0	0	0	0	0	12	1	2	0	0	1	0	16
15:45	0	0	0	0	0	0	1	1	4	1	0	0	0	0	0	5
16:00	0	0	0	0	0	0	0	0	4	1	3	0	0	0	0	8
16:15	0	0	1	0	0	0	0	1	8	1	2	0	0	1	1	13
16:30	2	0	1	0	0	0	1	4	7	0	0	0	0	0	1	8
16:45	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7
17:00	3	0	0	0	0	0	0	3	5	0	1	0	0	1	2	9
17:15	1	0	1	0	0	0	0	2	10	0	2	0	0	0	1	13
17:30	1	0	0	0	0	0	0	1	6	0	3	0	0	0	1	10
17:45	0	0	0	0	0	0	0	0	6	0	0	0	0	1	0	7
18:00	0	0	0	0	0	0	1	1	10	1	1	0	0	0	0	12
18:15	0	0	0	0	0	0	0	0	5	0	1	0	0	2	3	11
18:30	2	0	0	0	0	0	0	2	11	1	0	0	0	0	1	13
18:45	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
Total	81	1	19	2	0	0	9	112	275	70	57	8	2	12	37	461

Site No. 6
Location Access Road / Sheriff Street Lower(W) / Sheriff Street Lower(S)
Date 04 October 2018

Time	C to B - Sheriff Street Lower(S) to Sheriff Street Lower(W)							Veh. Total	C to A - Sheriff Street Lower(S) to Access Road							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	6	1	1	0	2	0	0	10	11	0	3	1	0	0	0	15
07:15	4	4	4	1	6	0	1	20	12	0	3	0	0	0	0	15
07:30	11	2	0	0	3	0	0	16	15	0	1	1	0	0	0	17
07:45	16	2	0	0	2	0	0	20	18	1	2	0	0	0	0	21
08:00	17	0	5	0	7	0	0	29	18	1	1	0	0	0	1	21
08:15	12	4	2	0	4	0	0	22	19	0	3	0	0	0	0	22
08:30	10	2	1	1	6	1	0	21	17	0	2	0	0	0	1	20
08:45	10	2	4	0	5	0	1	22	16	0	3	0	0	0	1	20
09:00	9	7	1	1	7	1	0	26	14	0	1	0	0	0	3	18
09:15	11	4	3	0	7	1	0	26	11	0	2	1	0	0	1	15
09:30	7	8	3	1	3	0	1	23	6	1	3	0	0	0	1	11
09:45	14	10	5	0	6	0	1	36	2	0	4	0	0	0	0	6
10:00	4	9	3	0	7	0	0	23	3	0	10	0	0	0	0	13
10:15	9	16	3	0	9	0	1	38	5	0	1	1	0	0	0	7
10:30	5	10	3	0	2	0	0	20	5	0	1	0	0	0	0	6
10:45	8	11	1	0	3	1	0	24	2	1	4	0	0	0	0	7
11:00	6	9	6	0	4	0	1	26	4	0	2	2	0	0	0	8
11:15	5	7	5	1	5	0	0	23	8	0	4	0	0	0	0	12
11:30	11	9	0	0	2	0	1	23	0	0	1	0	0	0	0	1
11:45	6	11	2	0	7	0	1	27	0	0	1	0	0	0	1	2
12:00	7	4	3	1	3	2	1	21	3	0	2	0	0	0	0	5
12:15	4	7	4	0	7	1	0	23	1	0	4	1	0	0	0	6
12:30	8	17	3	0	3	2	1	34	6	1	1	1	0	0	0	9
12:45	7	12	3	1	6	0	0	29	5	0	3	0	0	0	0	8
13:00	6	6	2	1	4	0	1	20	2	0	1	1	0	0	1	5
13:15	4	10	3	0	6	0	0	23	4	0	2	0	0	0	0	6
13:30	8	4	1	1	5	0	0	19	1	0	2	1	0	0	0	4
13:45	4	13	2	1	5	1	1	27	7	0	3	0	0	0	0	10
14:00	7	2	2	0	6	0	0	17	3	0	1	0	0	0	0	4
14:15	6	4	2	0	5	0	2	19	5	0	0	0	0	0	0	5
14:30	8	6	4	1	3	1	0	23	3	0	3	0	0	0	0	6
14:45	6	7	0	1	1	0	0	15	2	0	0	0	0	0	0	2
15:00	6	8	1	0	4	0	0	19	3	0	1	0	0	0	0	4
15:15	5	8	2	1	7	0	0	23	0	0	3	0	0	0	0	3
15:30	7	4	3	0	7	0	0	21	1	0	0	0	0	0	0	1
15:45	13	7	8	0	7	0	1	36	3	0	0	0	0	0	0	3
16:00	12	6	8	0	5	1	1	33	4	0	0	0	0	0	0	4
16:15	10	7	4	1	5	0	0	27	7	0	2	0	0	0	0	9
16:30	13	5	2	0	1	0	0	21	3	0	0	0	0	0	1	4
16:45	8	2	4	0	8	0	1	23	0	0	2	0	0	0	1	3
17:00	12	4	4	0	6	1	1	28	0	0	0	0	0	1	0	1
17:15	13	1	1	0	5	0	4	24	2	0	0	0	0	0	0	2
17:30	20	2	4	1	4	0	0	31	4	0	0	0	0	0	1	5
17:45	8	5	2	0	6	0	1	22	1	0	0	0	0	0	0	1
18:00	17	6	2	0	6	0	3	34	3	0	1	0	0	0	0	4
18:15	17	7	1	0	5	0	1	31	2	0	0	0	0	0	1	3
18:30	16	7	0	1	5	0	3	32	2	0	0	0	0	0	0	2
18:45	10	4	0	0	3	0	0	17	1	0	1	0	0	0	0	2
25.75	443	303	127	16	235	13	30	1167	264	5	84	10	0	1	14	378

Site No. 6
Location Access Road / Sheriff Street Lower(W) / Sheriff Street Lower(S)
Date 04 October 2018

Time	To Arm A - Access Road							Veh. Total	From Arm A - Access Road							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	15	0	4	1	0	0	1	21	3	1	0	0	0	0	0	4
07:15	14	0	4	0	0	0	1	19	3	0	0	0	0	0	0	3
07:30	18	0	1	1	0	0	0	20	1	0	0	1	0	0	1	3
07:45	22	1	3	0	0	0	1	27	0	0	1	1	0	0	0	2
08:00	24	1	1	0	0	0	1	27	2	1	4	0	0	0	0	7
08:15	25	0	6	0	0	0	0	31	1	0	2	0	0	0	0	3
08:30	21	0	4	0	0	0	1	26	1	0	2	0	0	0	0	3
08:45	25	0	4	0	0	0	1	30	1	0	2	0	0	0	1	4
09:00	21	0	1	0	0	0	4	26	1	0	0	0	0	0	1	2
09:15	13	0	2	1	0	0	1	17	4	0	3	0	0	0	0	7
09:30	9	1	3	0	0	0	1	14	2	1	3	0	0	0	0	6
09:45	3	0	5	0	0	0	0	8	3	0	2	1	0	0	0	6
10:00	4	0	10	0	0	0	0	14	0	0	5	0	0	0	0	5
10:15	5	0	1	1	0	0	0	7	4	0	4	0	0	1	0	9
10:30	6	0	2	0	0	0	1	9	1	0	2	1	0	0	1	5
10:45	3	1	4	0	0	0	0	8	6	1	0	0	0	0	0	7
11:00	6	0	3	2	0	0	0	11	8	0	2	0	0	2	0	12
11:15	9	0	4	0	0	0	0	13	6	0	6	2	0	0	0	14
11:30	1	0	1	0	0	0	0	2	5	0	1	0	0	0	2	8
11:45	1	0	1	0	0	0	1	3	3	0	2	0	0	0	0	5
12:00	3	0	2	0	0	0	0	5	7	0	5	0	0	0	1	13
12:15	1	0	4	2	0	0	0	7	5	0	2	0	0	0	0	7
12:30	9	1	2	1	0	0	0	13	6	1	4	0	0	0	0	11
12:45	5	0	4	0	0	0	0	9	3	2	2	1	0	0	0	8
13:00	5	0	1	2	0	0	1	9	7	0	2	0	0	0	1	10
13:15	5	0	2	0	0	0	0	7	8	0	3	2	0	0	0	13
13:30	2	0	2	1	0	0	0	5	6	0	1	1	0	0	0	8
13:45	10	0	4	0	0	0	0	14	6	0	4	0	0	0	0	10
14:00	3	0	2	0	0	0	1	6	7	0	3	0	0	0	0	10
14:15	5	0	0	0	0	0	0	5	2	0	2	0	0	0	0	4
14:30	3	1	3	0	0	0	0	7	9	0	3	0	0	0	0	12
14:45	3	0	0	0	0	0	0	3	5	1	3	0	0	0	0	9
15:00	3	0	1	0	0	0	0	4	2	0	2	0	0	0	0	4
15:15	1	0	3	0	0	0	0	4	4	0	3	0	0	0	0	7
15:30	1	0	0	0	0	0	0	1	8	0	3	1	0	0	1	13
15:45	3	0	0	0	0	0	1	4	5	0	0	0	0	0	1	6
16:00	4	0	0	0	0	0	0	4	14	0	5	0	0	0	2	21
16:15	7	0	3	0	0	0	0	10	12	0	2	0	0	0	1	15
16:30	5	0	1	0	0	0	2	8	15	0	0	1	0	0	1	17
16:45	0	0	2	0	0	0	1	3	13	0	0	0	0	0	1	14
17:00	3	0	0	0	0	1	0	4	15	0	0	0	0	0	3	18
17:15	3	0	1	0	0	0	0	4	24	0	1	0	0	0	0	25
17:30	5	0	0	0	0	0	1	6	20	0	2	0	0	0	1	23
17:45	1	0	0	0	0	0	0	1	19	0	0	0	0	0	1	20
18:00	3	0	1	0	0	0	1	5	22	0	2	0	0	0	0	24
18:15	2	0	0	0	0	0	1	3	10	0	2	0	0	0	1	13
18:30	4	0	0	0	0	0	0	4	14	0	1	0	0	0	1	16
18:45	1	0	1	0	0	0	0	2	12	1	0	0	0	0	0	13
25.75	345	6	103	12	0	1	23	490	335	9	98	12	0	3	22	479

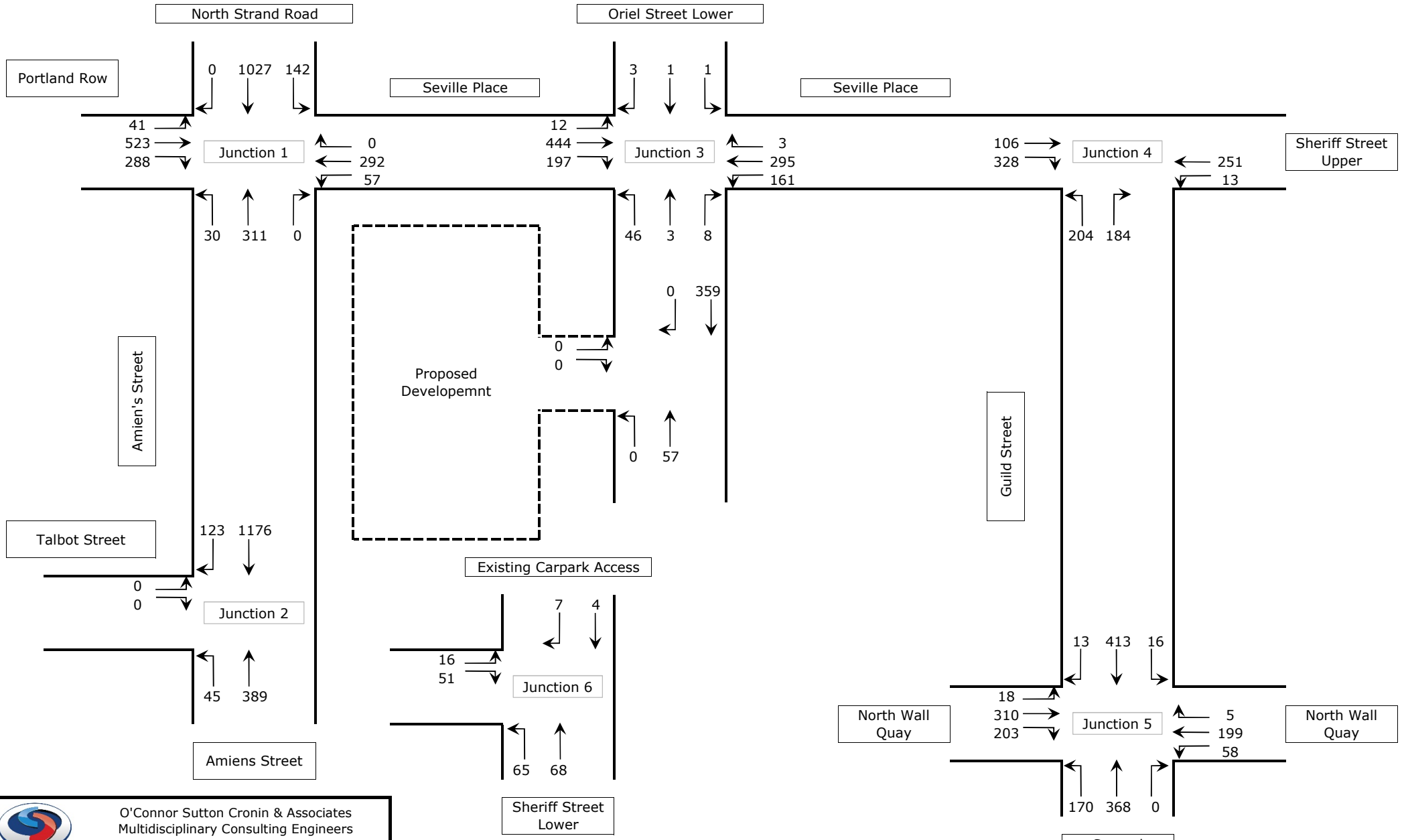
Site No. 6
Location Access Road / Sheriff Street Lower(W) / Sheriff Street Lower(S)
Date 04 October 2018

Time	To Arm B - Sheriff Street Lower(W)							Veh. Total	From Arm B - Sheriff Street Lower(W)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	8	1	1	0	2	0	0	12	14	1	3	1	0	0	1	20
07:15	5	4	4	1	6	0	1	21	6	2	1	0	0	1	1	11
07:30	12	2	0	1	3	0	1	19	13	5	0	0	0	0	1	19
07:45	16	2	1	1	2	0	0	22	16	2	1	0	1	0	2	22
08:00	18	0	8	0	7	0	0	33	12	0	0	0	0	0	2	14
08:15	12	4	3	0	4	0	0	23	11	2	5	0	0	0	1	19
08:30	10	2	2	1	6	1	0	22	16	1	3	0	0	0	4	24
08:45	11	2	4	0	5	0	1	23	27	3	1	1	0	1	2	35
09:00	9	7	1	1	7	1	0	26	19	3	0	1	0	1	3	27
09:15	12	4	4	0	7	1	0	28	7	2	0	0	0	0	0	9
09:30	8	8	4	1	3	0	1	25	14	4	2	0	0	0	1	21
09:45	16	10	5	1	6	0	1	39	7	1	3	0	0	0	1	12
10:00	4	9	4	0	7	0	0	24	5	3	1	1	0	1	0	11
10:15	11	16	6	0	9	1	1	44	3	2	3	1	0	0	0	9
10:30	6	10	4	1	2	0	1	24	5	4	4	0	0	0	1	14
10:45	13	11	1	0	3	1	0	29	6	3	1	0	0	0	0	10
11:00	7	9	7	0	4	2	1	30	5	2	5	0	0	0	0	12
11:15	7	7	8	1	5	0	0	28	1	3	0	0	0	0	0	4
11:30	13	9	0	0	2	0	1	25	4	2	1	0	0	1	0	8
11:45	7	11	3	0	7	0	1	29	1	2	1	1	0	0	1	6
12:00	9	4	4	1	3	2	1	24	3	0	2	0	0	0	0	5
12:15	6	7	4	0	7	1	0	25	5	1	1	1	0	0	1	9
12:30	10	18	4	0	3	2	1	38	6	2	4	0	0	0	0	12
12:45	8	12	3	1	6	0	0	30	1	0	2	0	0	0	0	3
13:00	8	6	3	1	4	0	1	23	7	2	1	2	0	0	2	14
13:15	7	10	4	1	6	0	0	28	5	0	2	0	0	0	1	8
13:30	8	4	1	2	5	0	0	20	7	1	3	1	0	0	1	13
13:45	5	13	2	1	5	1	1	28	8	1	2	0	0	0	3	14
14:00	8	2	3	0	6	0	0	19	1	0	1	0	0	0	1	3
14:15	8	4	2	0	5	0	2	21	1	1	2	0	0	0	0	4
14:30	10	6	4	1	3	1	0	25	2	3	1	0	0	0	0	6
14:45	7	7	1	1	1	0	0	17	3	1	2	0	0	0	1	7
15:00	7	8	2	0	4	0	0	21	1	2	0	0	1	0	2	6
15:15	5	8	3	1	7	0	0	24	4	3	0	0	0	1	0	8
15:30	8	4	3	0	7	0	0	22	12	1	2	0	0	1	0	16
15:45	14	7	8	0	7	0	2	38	4	1	0	0	0	0	1	6
16:00	14	6	11	0	5	1	1	38	4	1	3	0	0	0	0	8
16:15	16	7	4	1	5	0	0	33	8	1	3	0	0	1	1	14
16:30	17	5	2	0	1	0	0	25	9	0	1	0	0	0	2	12
16:45	11	2	4	0	8	0	2	27	6	1	0	0	0	0	0	7
17:00	17	4	4	0	6	1	3	35	8	0	1	0	0	1	2	12
17:15	19	1	1	0	5	0	4	30	11	0	3	0	0	0	1	15
17:30	24	2	5	1	4	0	1	37	7	0	3	0	0	0	1	11
17:45	13	5	2	0	6	0	1	27	6	0	0	0	0	1	0	7
18:00	22	6	2	0	6	0	3	39	10	1	1	0	0	0	1	13
18:15	21	7	1	0	5	0	1	35	5	0	1	0	0	2	3	11
18:30	24	7	0	1	5	0	3	40	13	1	0	0	0	0	1	15
18:45	10	4	0	0	3	0	0	17	7	0	0	0	0	0	0	7
25.75	541	304	157	22	235	16	37	1312	356	71	76	10	2	12	46	573

Site No. 6
Location Access Road / Sheriff Street Lower(W) / Sheriff Street Lower(S)
Date 04 October 2018

Time	To Arm C - Sheriff Street Lower(S)							Veh. Total	From Arm C - Sheriff Street Lower(S)							Veh. Total
	CAR	TAXI	LGV	HGV	PSV	M/C	P/C		CAR	TAXI	LGV	HGV	PSV	M/C	P/C	
07:00	11	2	2	1	0	0	0	16	17	1	4	1	2	0	0	25
07:15	6	2	0	0	0	1	0	9	16	4	7	1	6	0	1	35
07:30	10	5	0	0	0	0	1	16	26	2	1	1	3	0	0	33
07:45	12	2	0	0	1	0	1	16	34	3	2	0	2	0	0	41
08:00	7	1	1	0	0	0	2	11	35	1	6	0	7	0	1	50
08:15	6	2	3	0	0	0	1	12	31	4	5	0	4	0	0	44
08:30	13	1	2	0	0	0	4	20	27	2	3	1	6	1	1	41
08:45	18	3	2	1	0	1	3	28	26	2	7	0	5	0	2	42
09:00	13	3	0	1	0	1	3	21	23	7	2	1	7	1	3	44
09:15	8	2	2	0	0	0	0	12	22	4	5	1	7	1	1	41
09:30	12	5	4	0	0	0	1	22	13	9	6	1	3	0	2	34
09:45	7	1	4	0	0	0	1	13	16	10	9	0	6	0	1	42
10:00	4	3	5	1	0	1	0	14	7	9	13	0	7	0	0	36
10:15	5	2	4	1	0	0	0	12	14	16	4	1	9	0	1	45
10:30	4	4	4	0	0	0	0	12	10	10	4	0	2	0	0	26
10:45	6	4	1	0	0	0	0	11	10	12	5	0	3	1	0	31
11:00	10	2	5	0	0	0	0	17	10	9	8	2	4	0	1	34
11:15	4	3	3	2	0	0	0	12	13	7	9	1	5	0	0	35
11:30	6	2	2	0	0	1	2	13	11	9	1	0	2	0	1	24
11:45	2	2	2	1	0	0	1	8	6	11	3	0	7	0	2	29
12:00	8	0	6	0	0	0	1	15	10	4	5	1	3	2	1	26
12:15	8	1	3	0	0	0	1	13	5	7	8	1	7	1	0	29
12:30	7	2	6	0	0	0	0	15	14	18	4	1	3	2	1	43
12:45	3	2	3	1	0	0	0	9	12	12	6	1	6	0	0	37
13:00	9	2	2	1	0	0	3	17	8	6	3	2	4	0	2	25
13:15	9	0	4	1	0	0	1	15	8	10	5	0	6	0	0	29
13:30	12	1	4	1	0	0	1	19	9	4	3	2	5	0	0	23
13:45	10	1	5	0	0	0	3	19	11	13	5	1	5	1	1	37
14:00	7	0	2	0	0	0	0	9	10	2	3	0	6	0	0	21
14:15	1	1	4	0	0	0	0	6	11	4	2	0	5	0	2	24
14:30	9	2	4	0	0	0	0	15	11	6	7	1	3	1	0	29
14:45	6	2	4	0	0	0	1	13	8	7	0	1	1	0	0	17
15:00	2	2	1	0	1	0	2	8	9	8	2	0	4	0	0	23
15:15	7	3	2	0	0	1	0	13	5	8	5	1	7	0	0	26
15:30	19	1	5	1	0	1	1	28	8	4	3	0	7	0	0	22
15:45	8	1	0	0	0	0	0	9	16	7	8	0	7	0	1	39
16:00	16	1	5	0	0	0	2	24	16	6	8	0	5	1	1	37
16:15	14	1	4	0	0	1	2	22	17	7	6	1	5	0	0	36
16:30	18	0	0	1	0	0	2	21	16	5	2	0	1	0	1	25
16:45	16	1	0	0	0	0	0	17	8	2	6	0	8	0	2	26
17:00	15	0	1	0	0	1	3	20	12	4	4	0	6	2	1	29
17:15	28	0	3	0	0	0	1	32	15	1	1	0	5	0	4	26
17:30	22	0	4	0	0	0	1	27	24	2	4	1	4	0	1	36
17:45	20	0	0	0	0	1	1	22	9	5	2	0	6	0	1	23
18:00	27	1	3	0	0	0	0	31	20	6	3	0	6	0	3	38
18:15	11	0	3	0	0	2	4	20	19	7	1	0	5	0	2	34
18:30	17	1	1	0	0	0	2	21	18	7	0	1	5	0	3	34
18:45	19	1	0	0	0	0	0	20	11	4	1	0	3	0	0	19
25.75	512	78	125	14	2	12	52	795	707	308	211	26	235	14	44	1545

APPENDIX B: TRAFFIC FLOW DIAGRAMS



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'The Connolly Quarter' SHD Development

Diagram 1: 2018 A.M. Peak Hour Base Flows
(07:00 – 08:00)

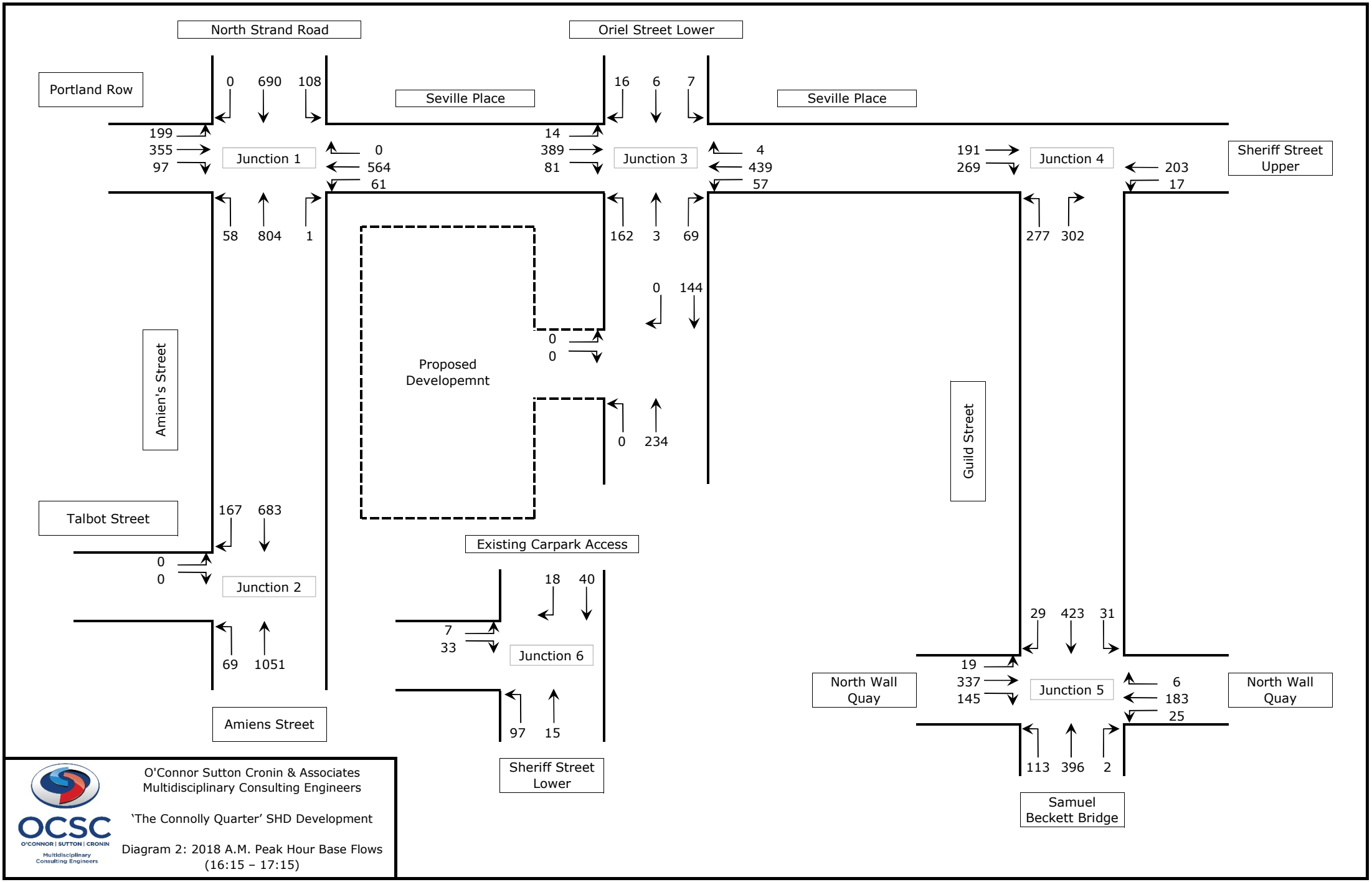

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Diagram 2: 2018 A.M. Peak Hour Base Flows
(16:15 – 17:15)

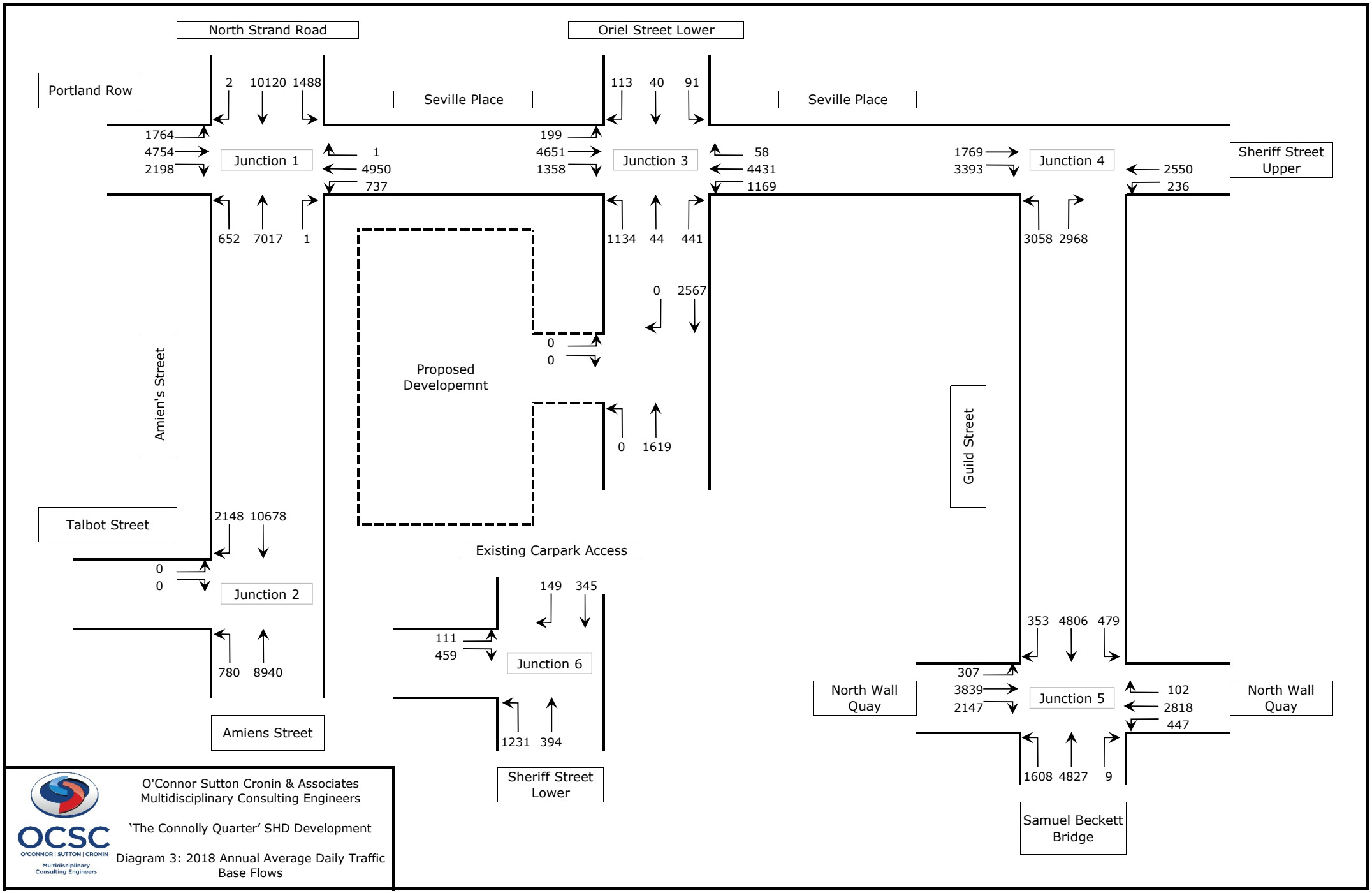

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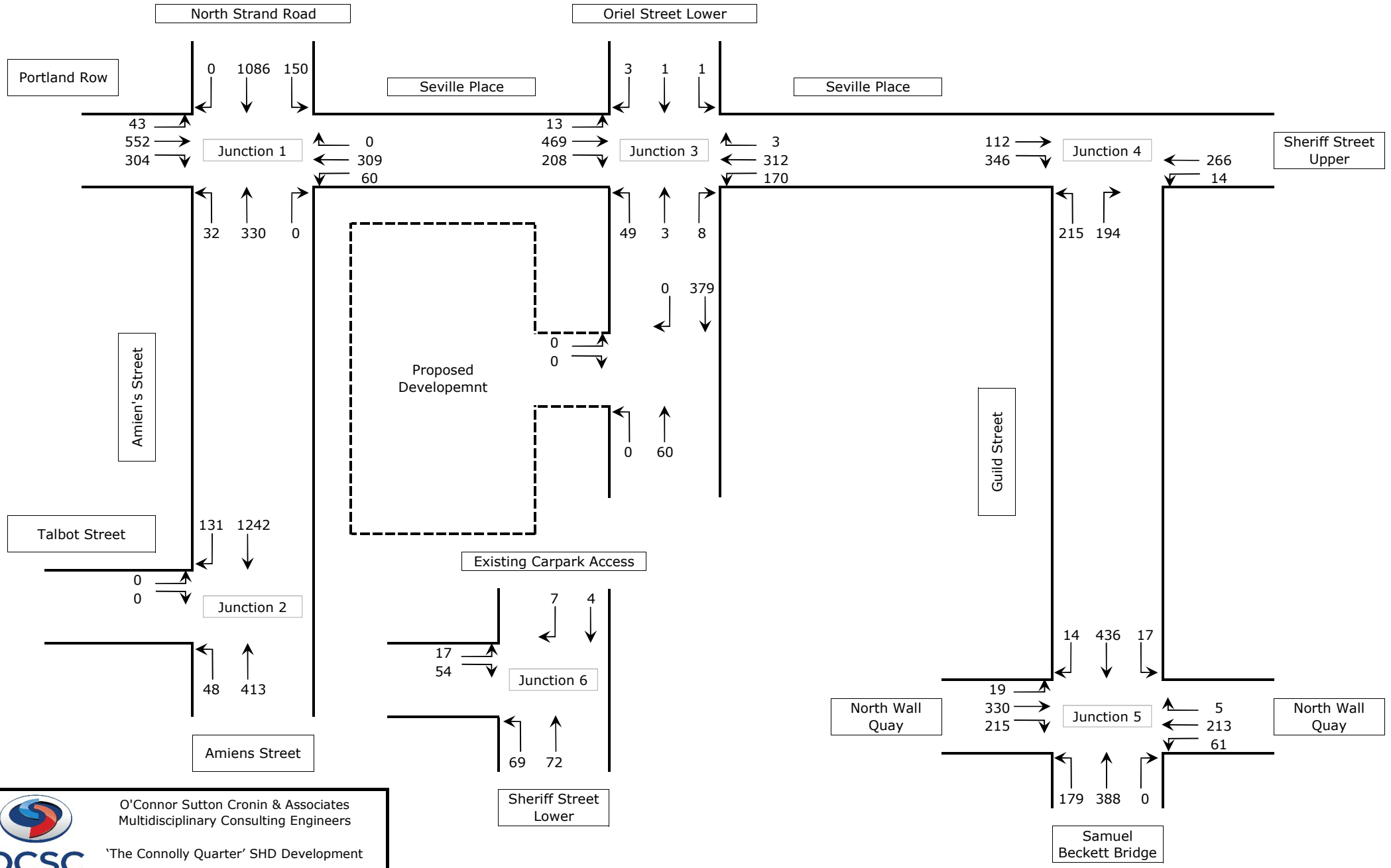
Diagram 3: 2018 Annual Average Daily Traffic Base Flows



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'The Connolly Quarter' SHD Development

Diagram 4: 2022 A.M. Peak Hour Flows – Do Nothing

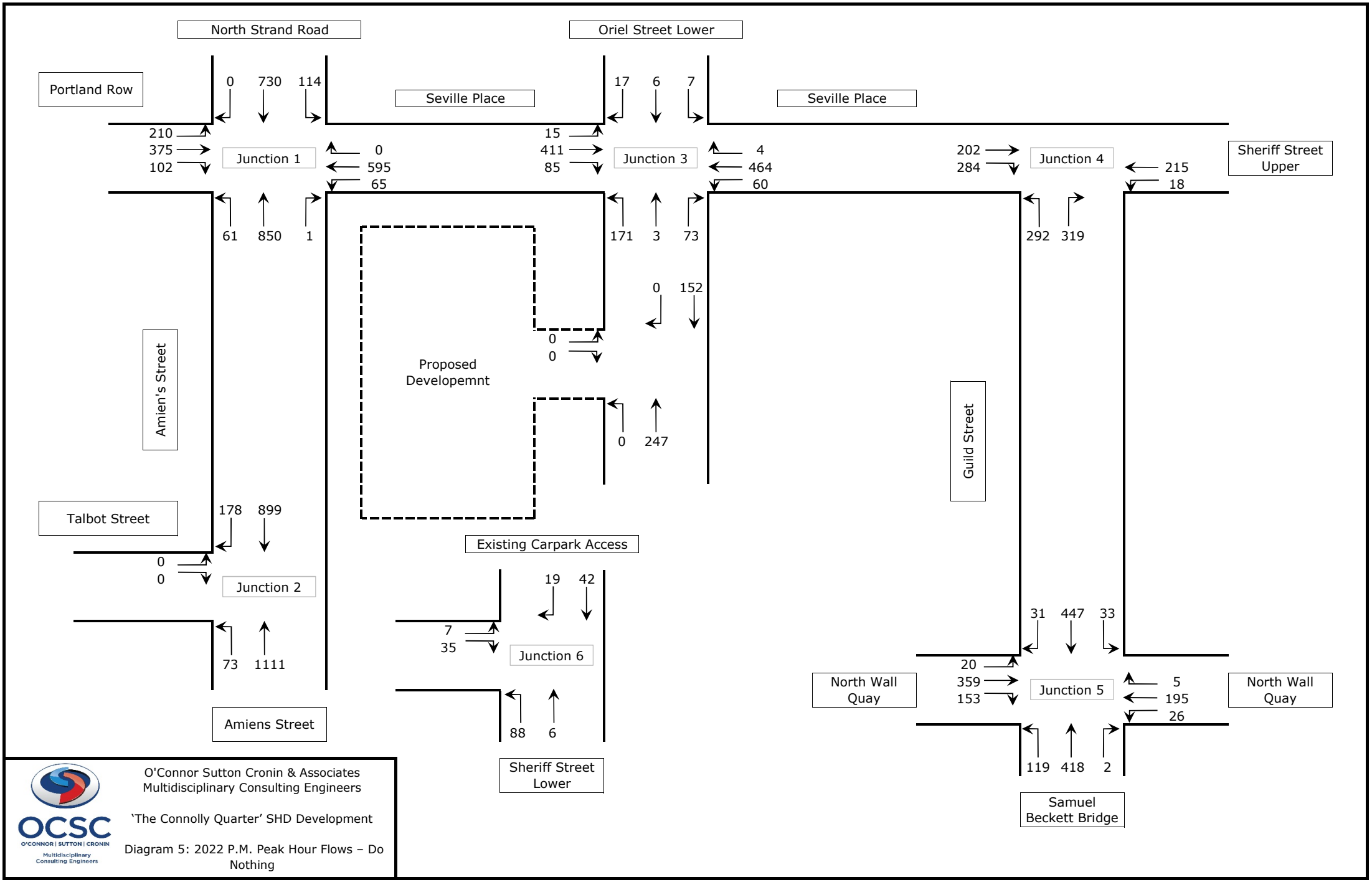

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Diagram 5: 2022 P.M. Peak Hour Flows – Do Nothing

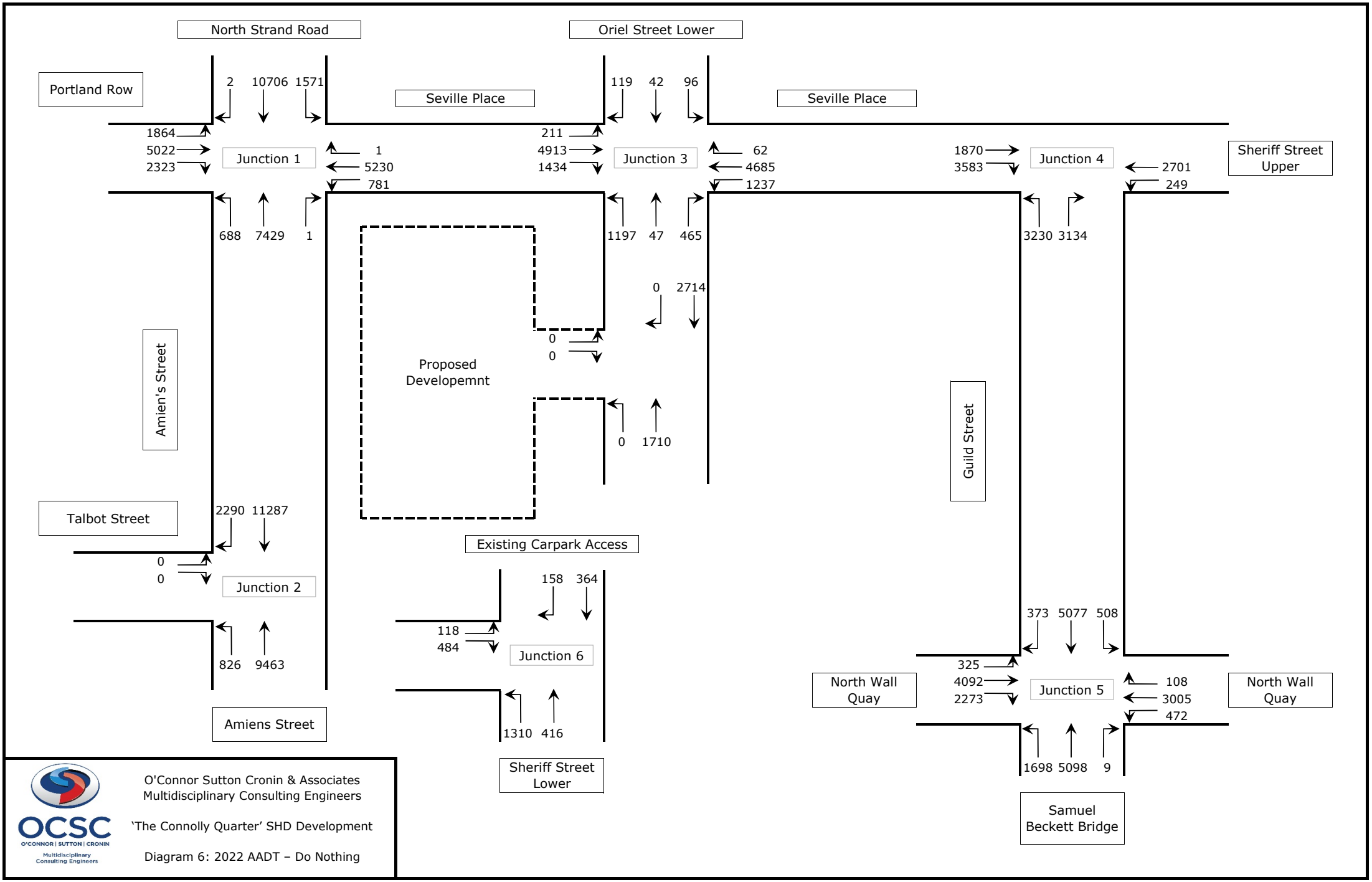

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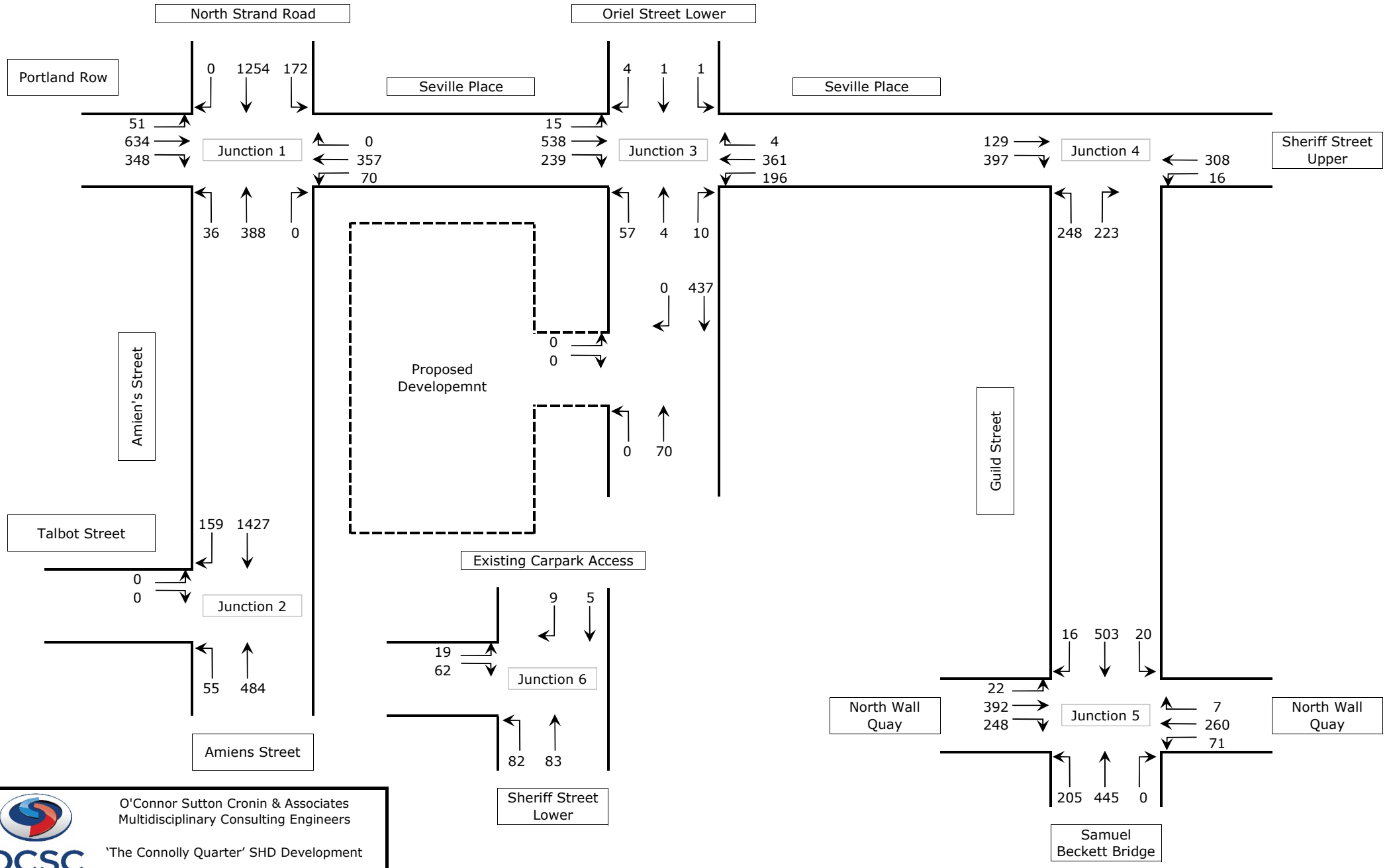
Diagram 6: 2022 AADT – Do Nothing



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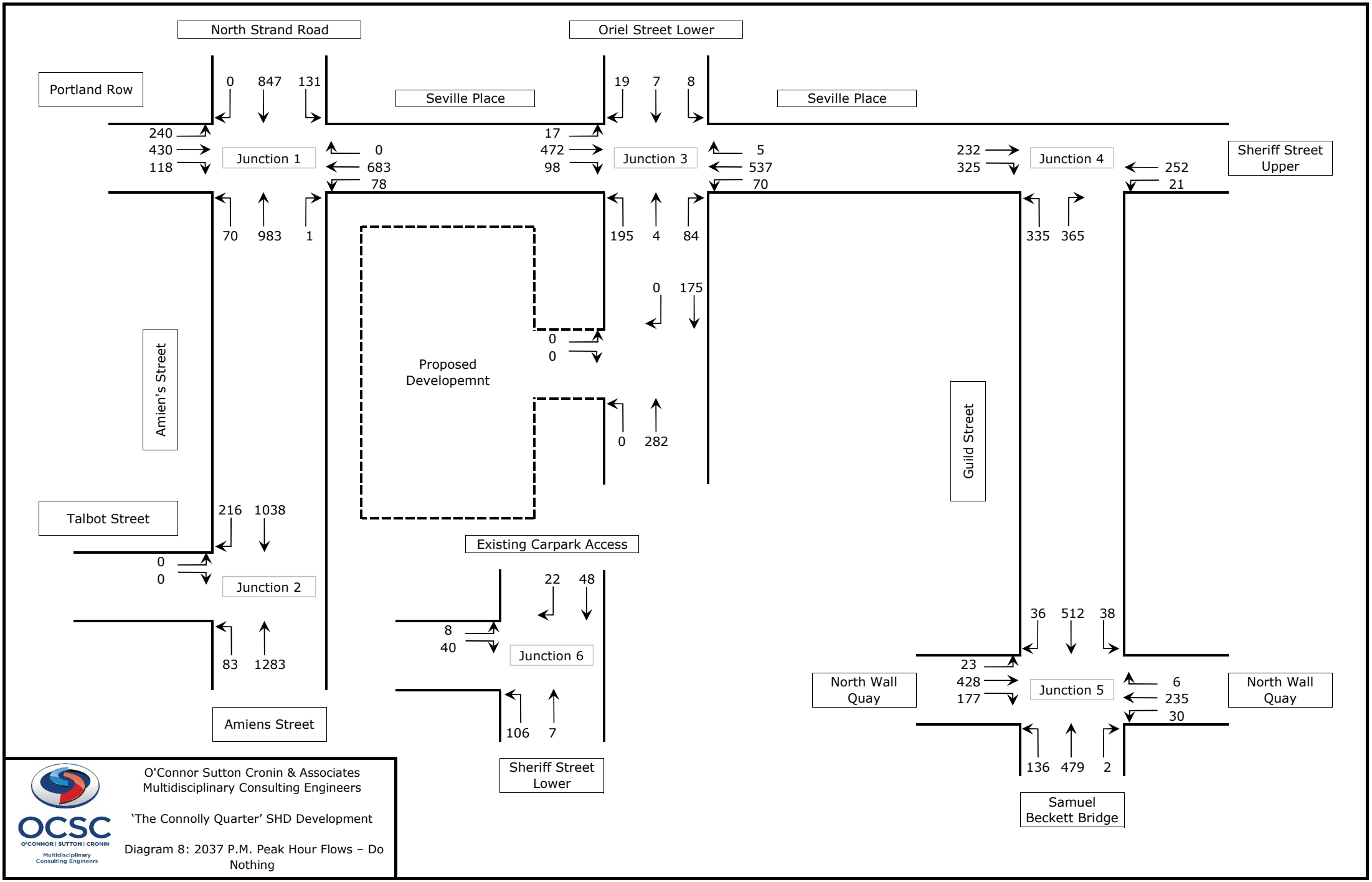
'The Connolly Quarter' SHD Development

Diagram 7: 2037 A.M. Peak Hour Flows – Do Nothing



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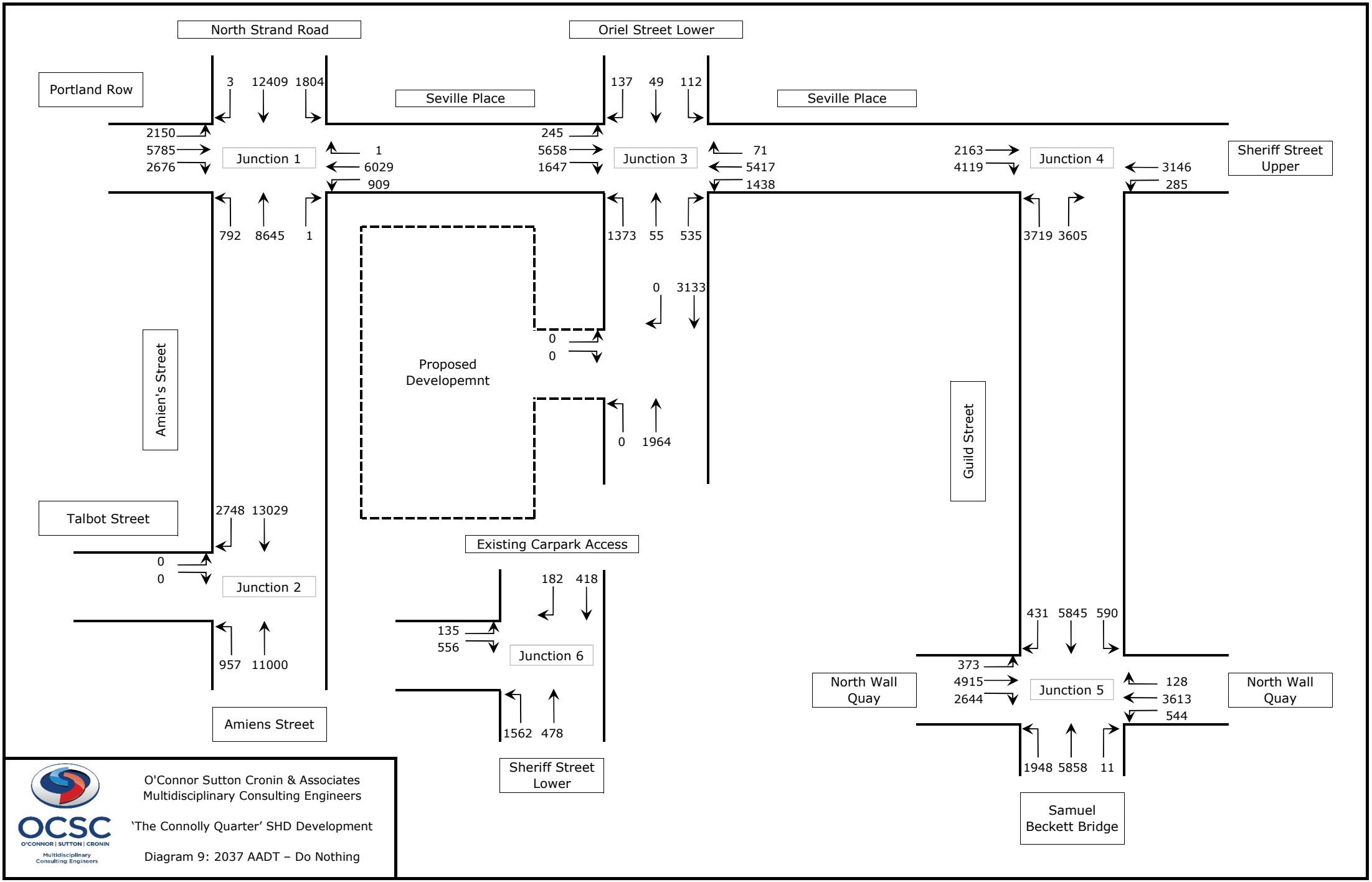
'The Connolly Quarter' SHD Development

Diagram 8: 2037 P.M. Peak Hour Flows – Do Nothing



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'The Connolly Quarter' SHD Development

Diagram 9: 2037 AADT – Do Nothing

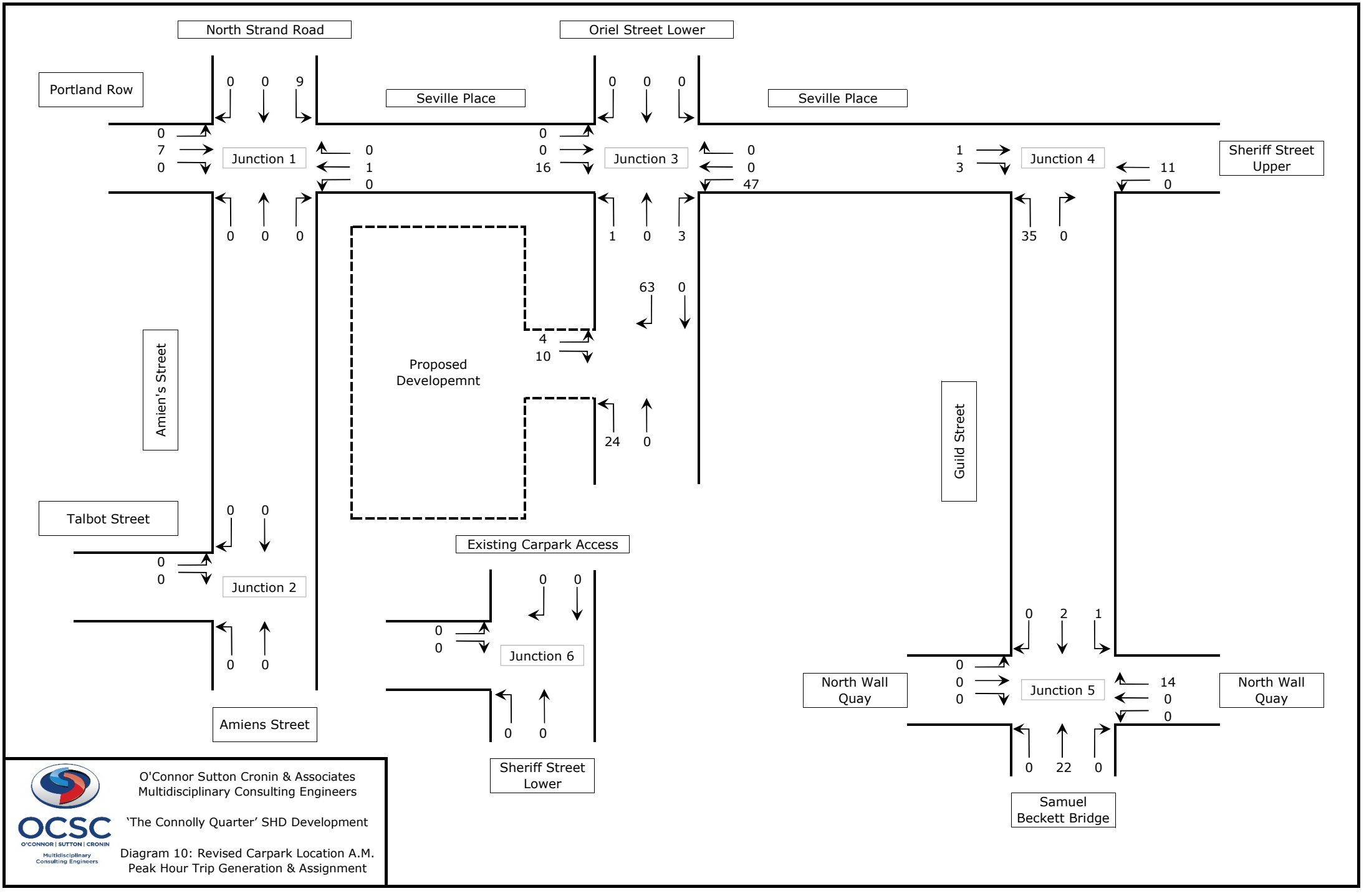

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Diagram 10: Revised Carpark Location A.M. Peak Hour Trip Generation & Assignment

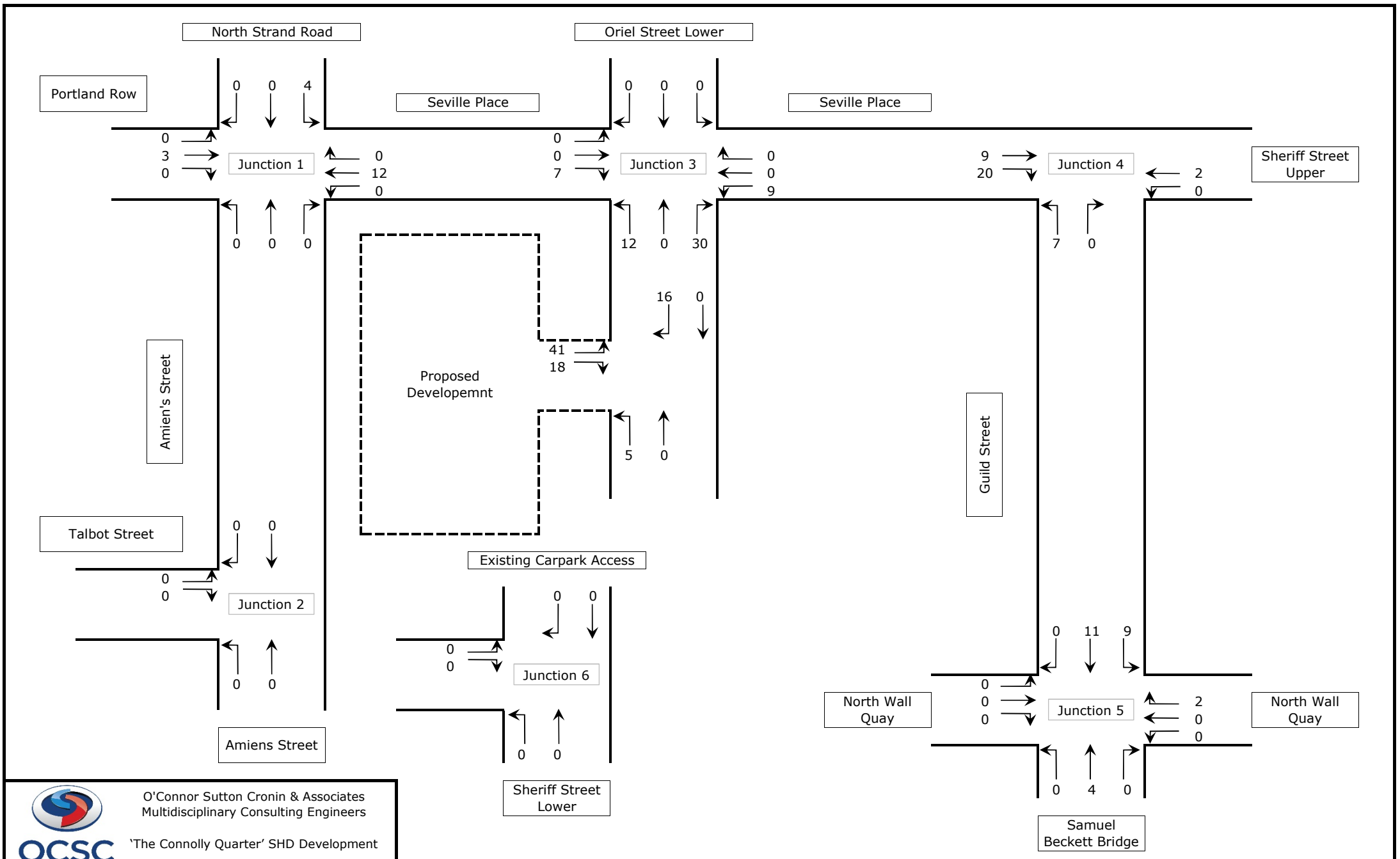

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Diagram 11: Revised Carpark Location P.M. Peak Hour Trip Generation & Assignment

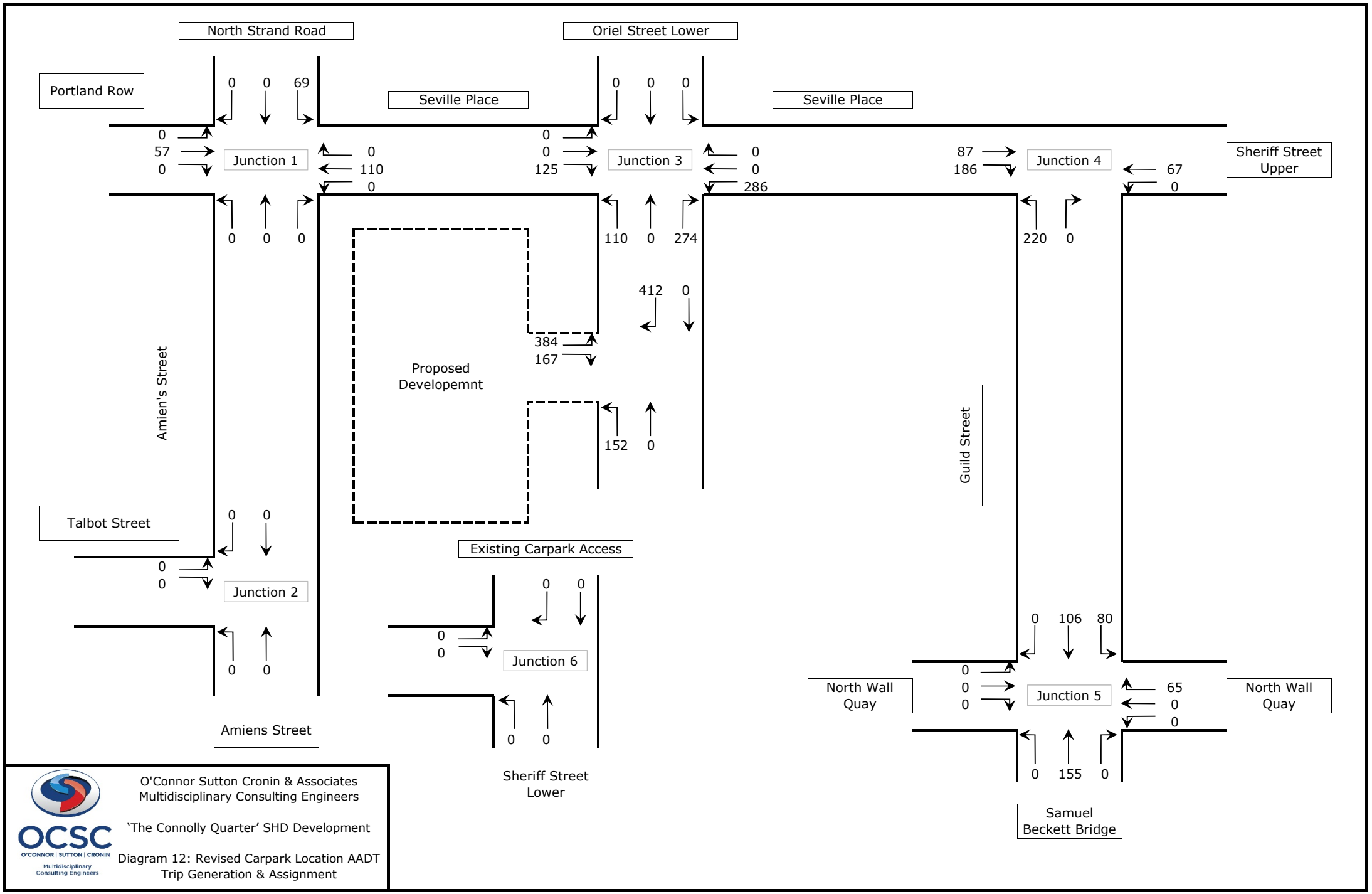

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Diagram 12: Revised Carpark Location AADT Trip Generation & Assignment

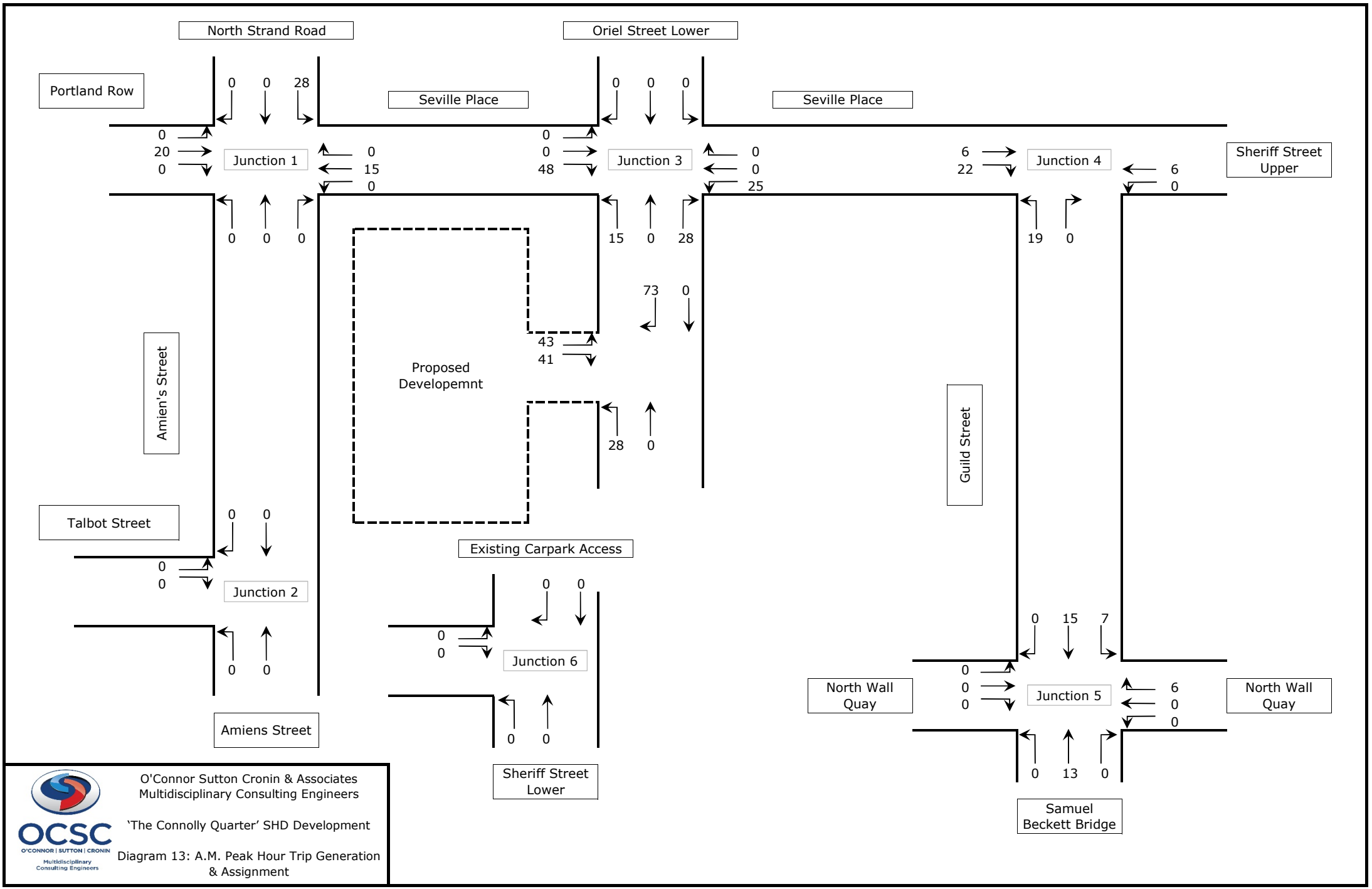

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Diagram 13: A.M. Peak Hour Trip Generation & Assignment

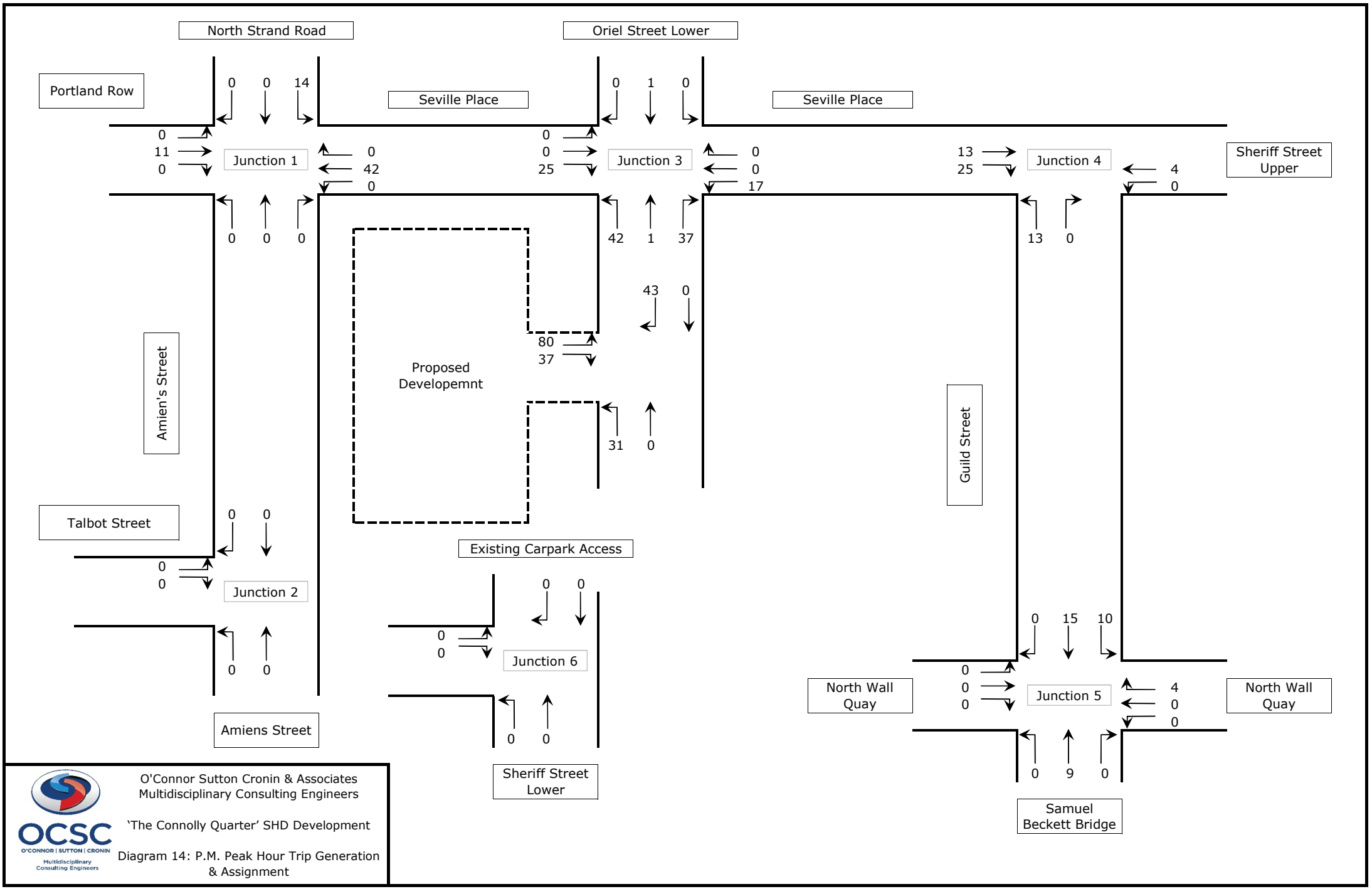

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Diagram 14: P.M. Peak Hour Trip Generation & Assignment

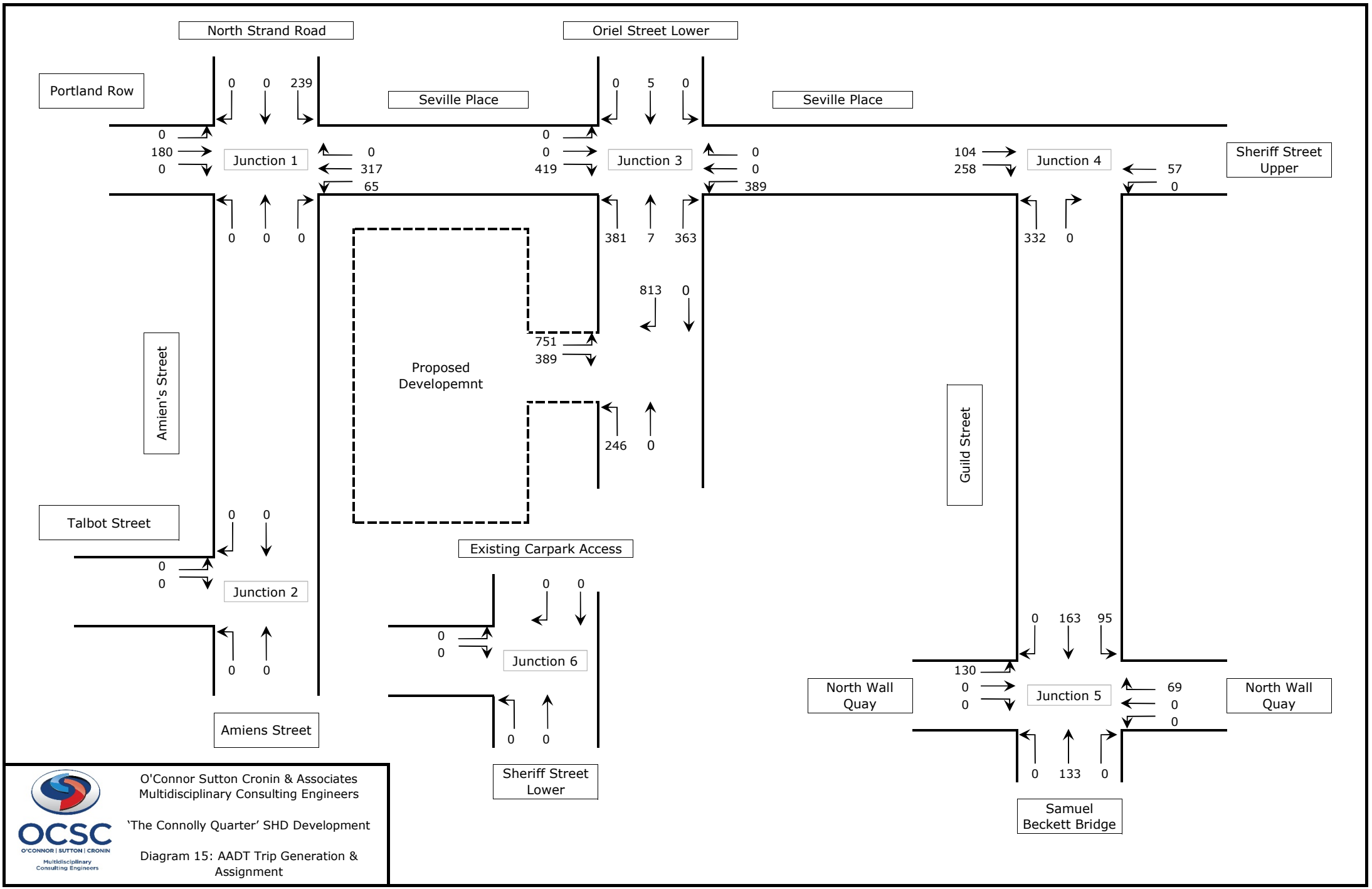

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Diagram 15: AADT Trip Generation & Assignment

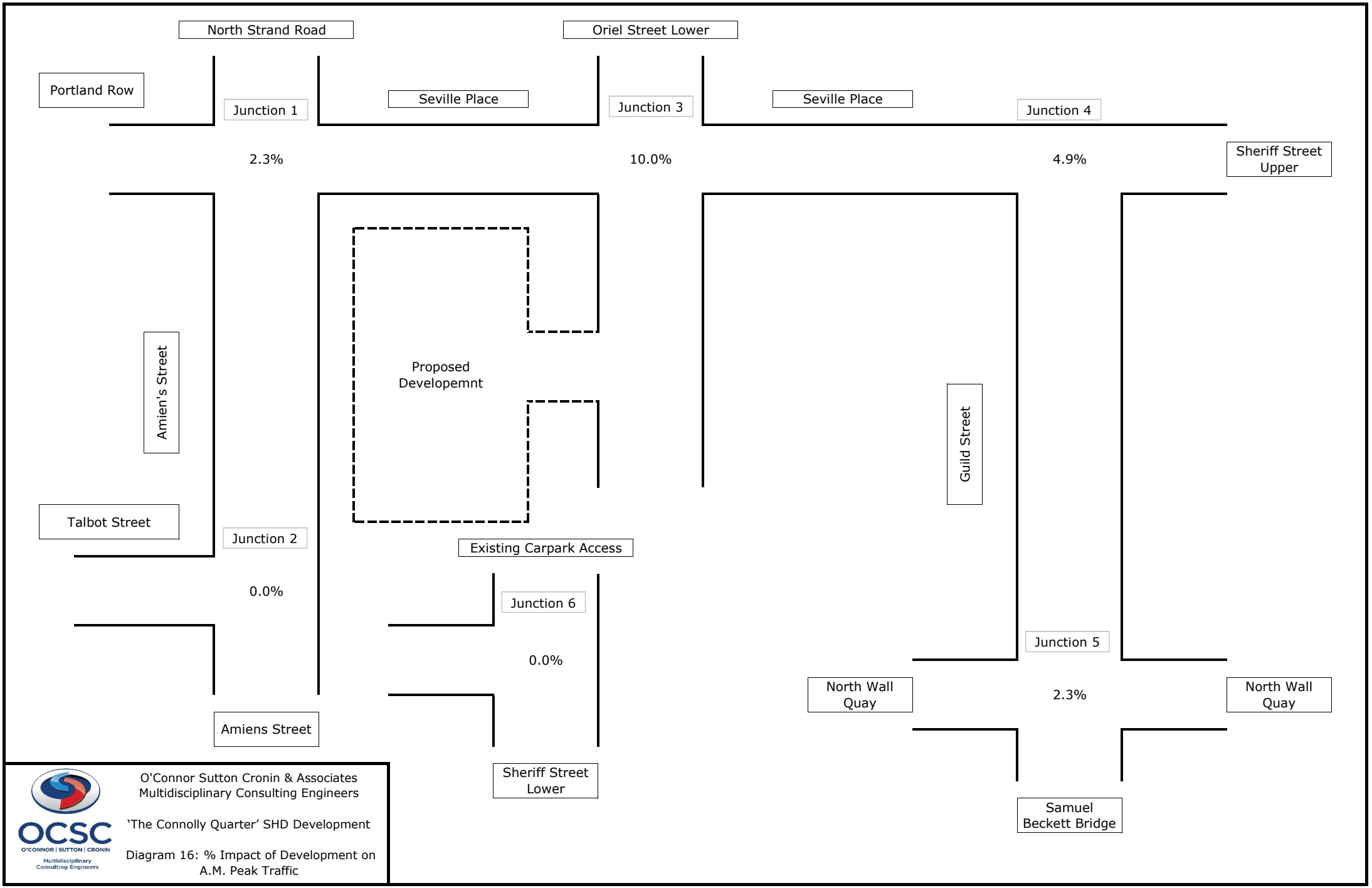

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Diagram 16: % Impact of Development on A.M. Peak Traffic

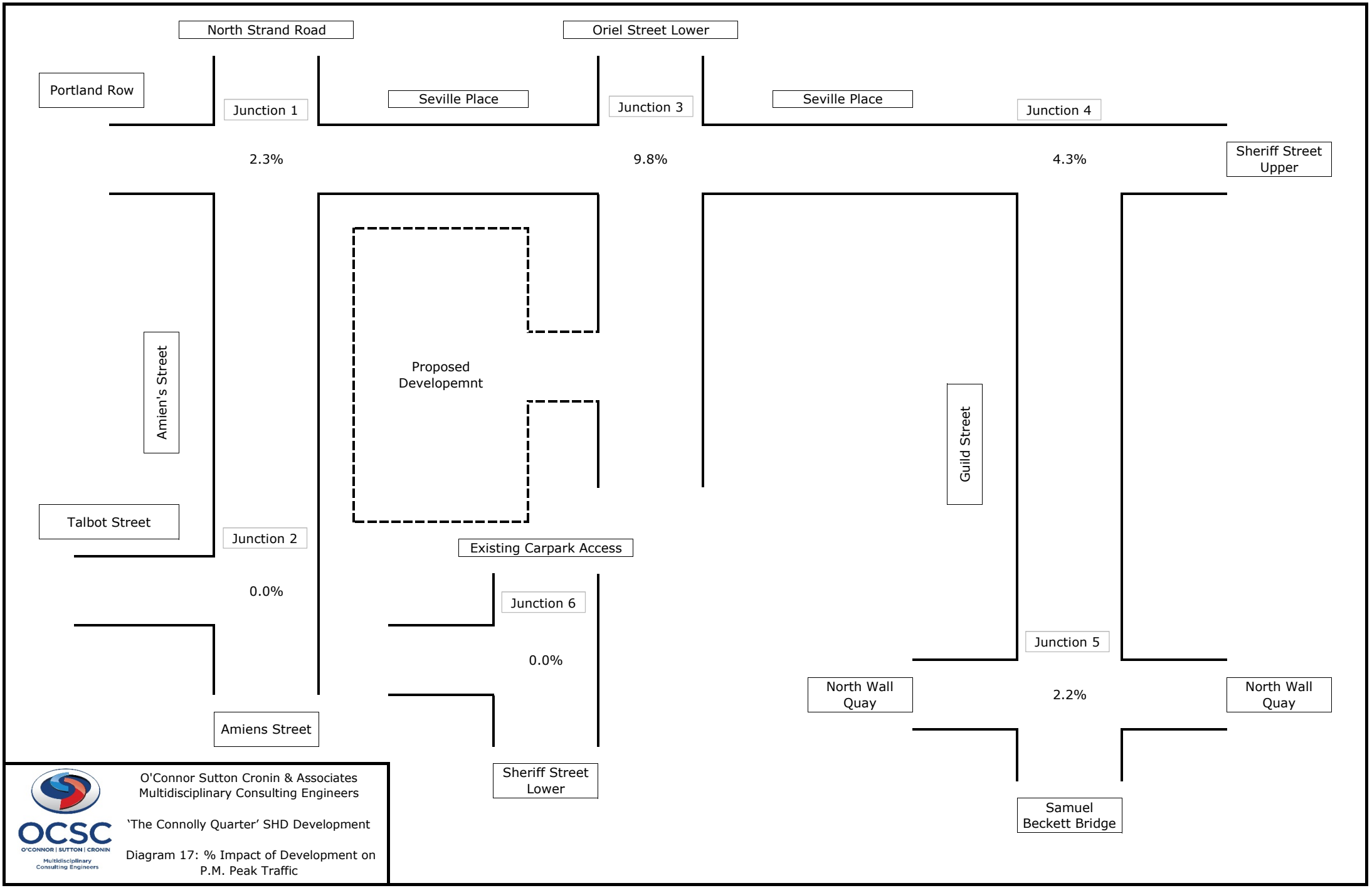

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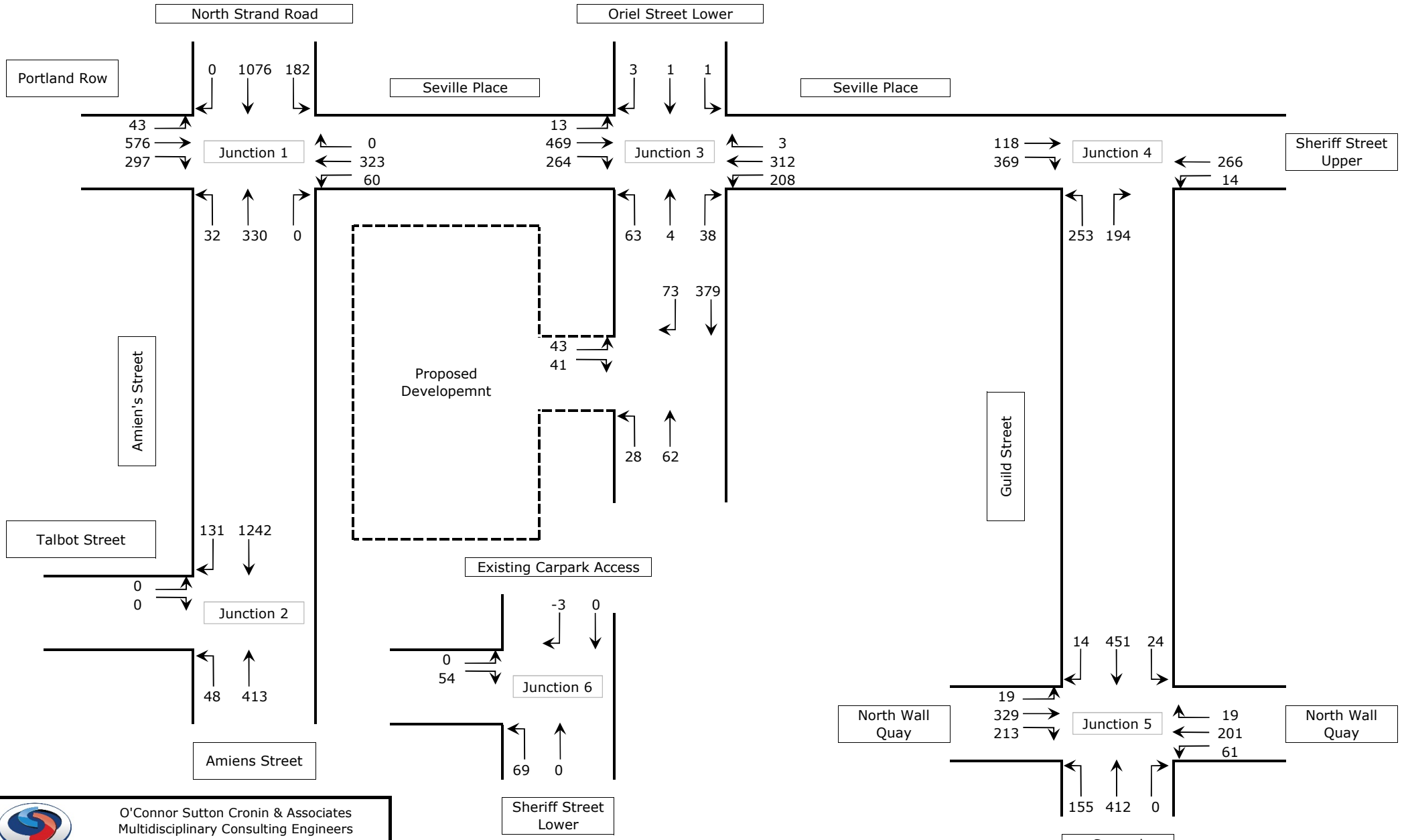
Diagram 17: % Impact of Development on P.M. Peak Traffic



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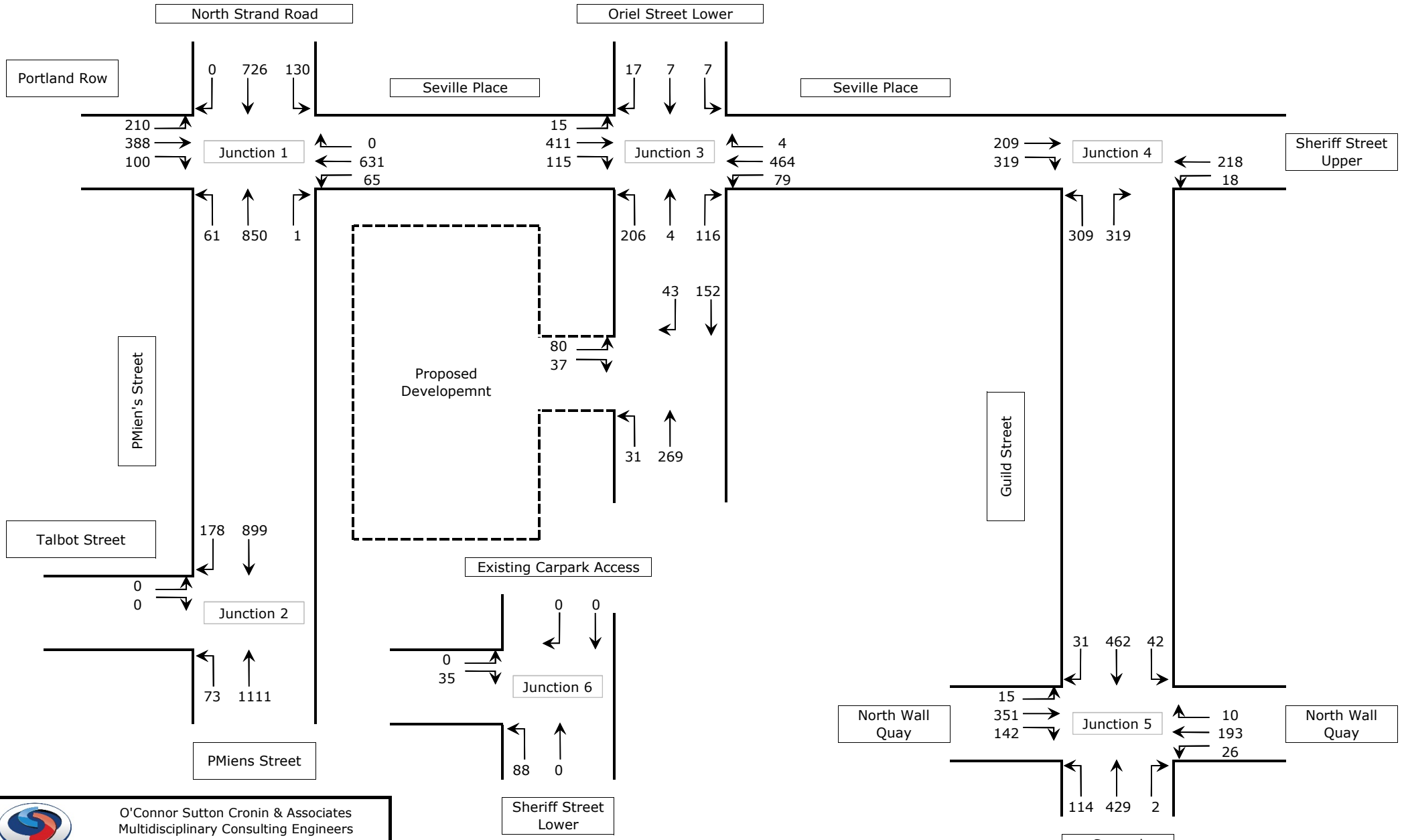
'The Connolly Quarter' SHD Development

Diagram 18: 2022 A.M. Peak Hour Flows – Do Something



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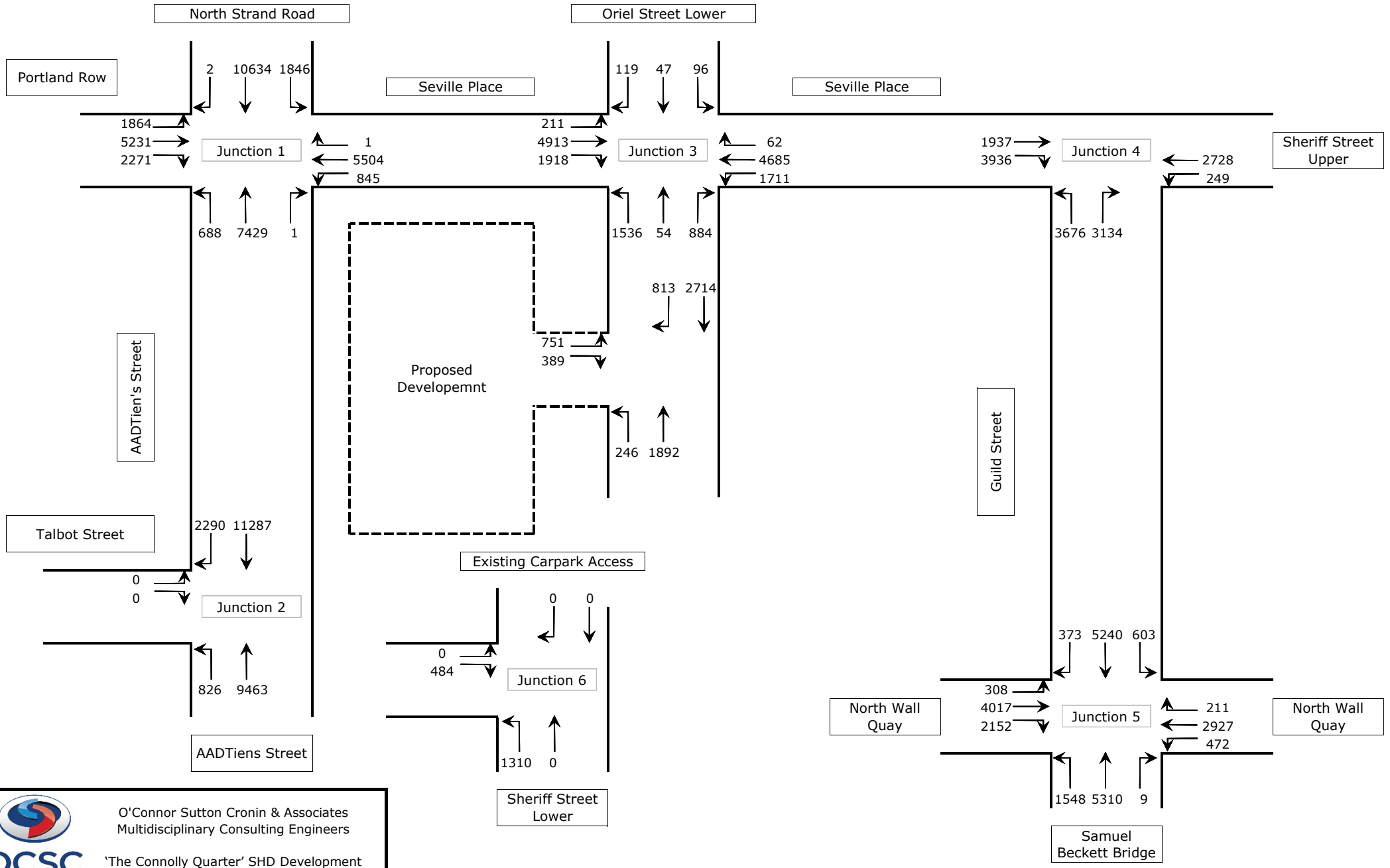
'The Connolly Quarter' SHD Development

Diagram 19: 2022 P.M. Peak Hour Flows – Do Something



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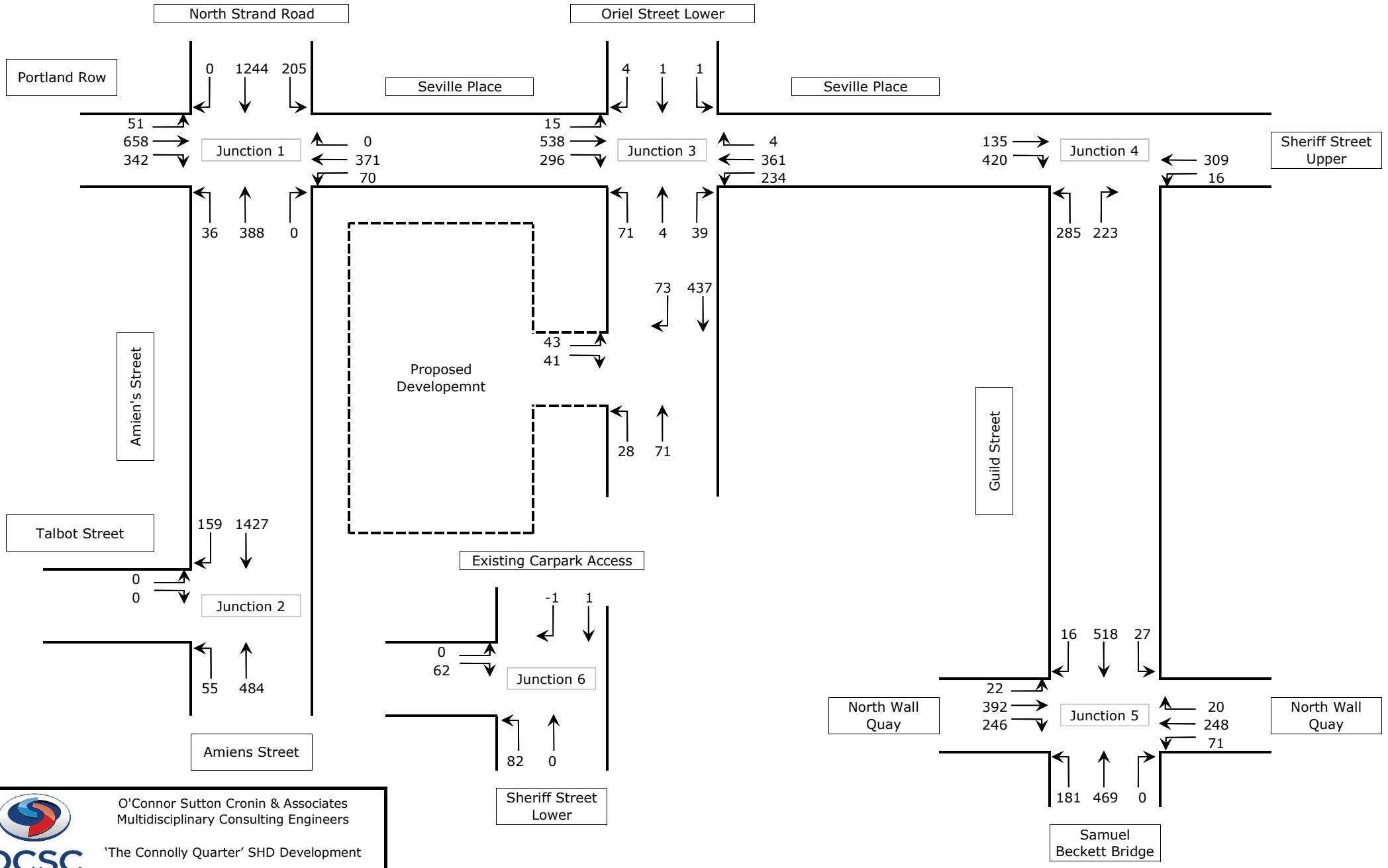
'The Connolly Quarter' SHD Development

Diagram 20: 2022 AADT Flows – Do Something



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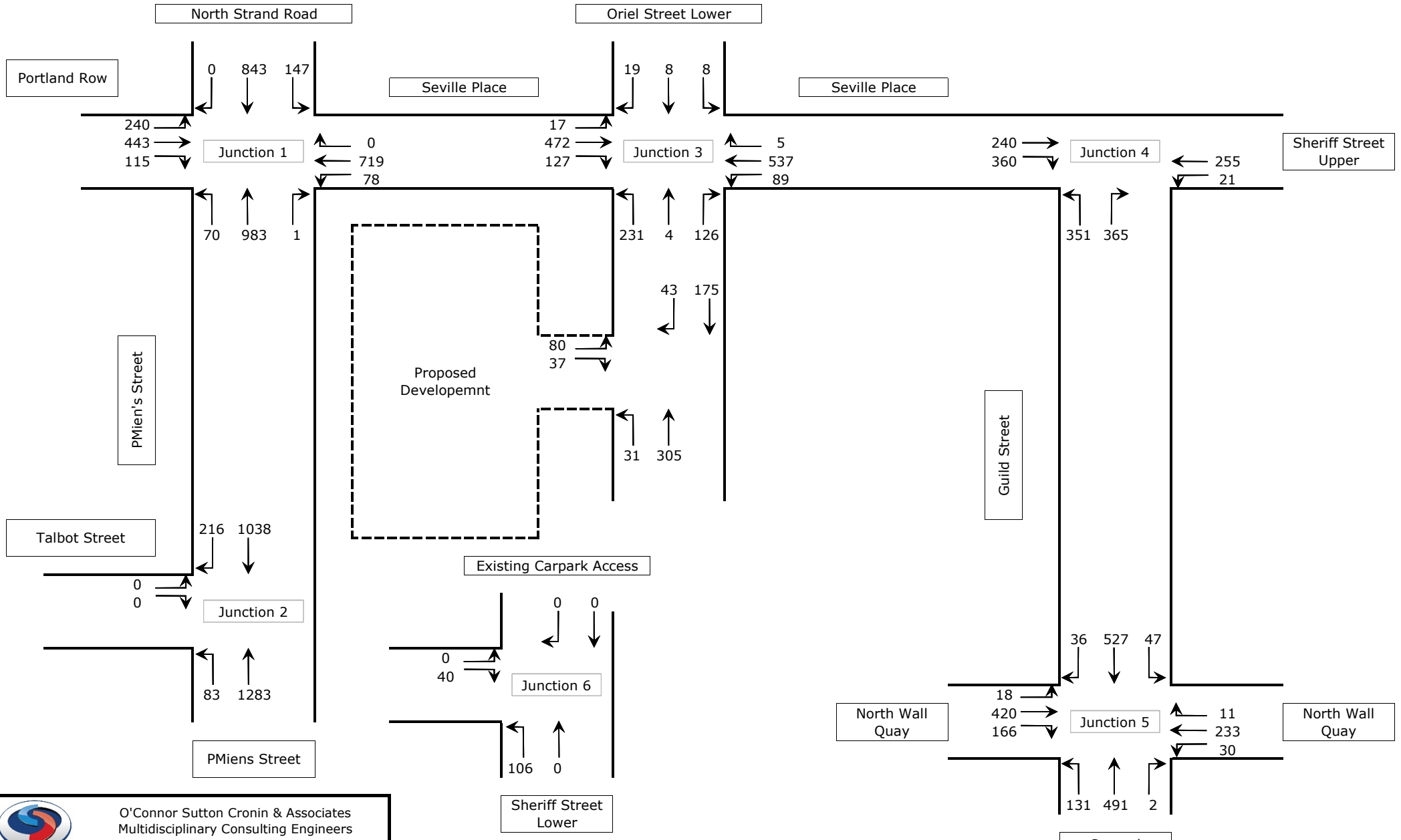
'The Connolly Quarter' SHD Development

Diagram 21: 2037 A.M. Peak Hour Flows – Do Something



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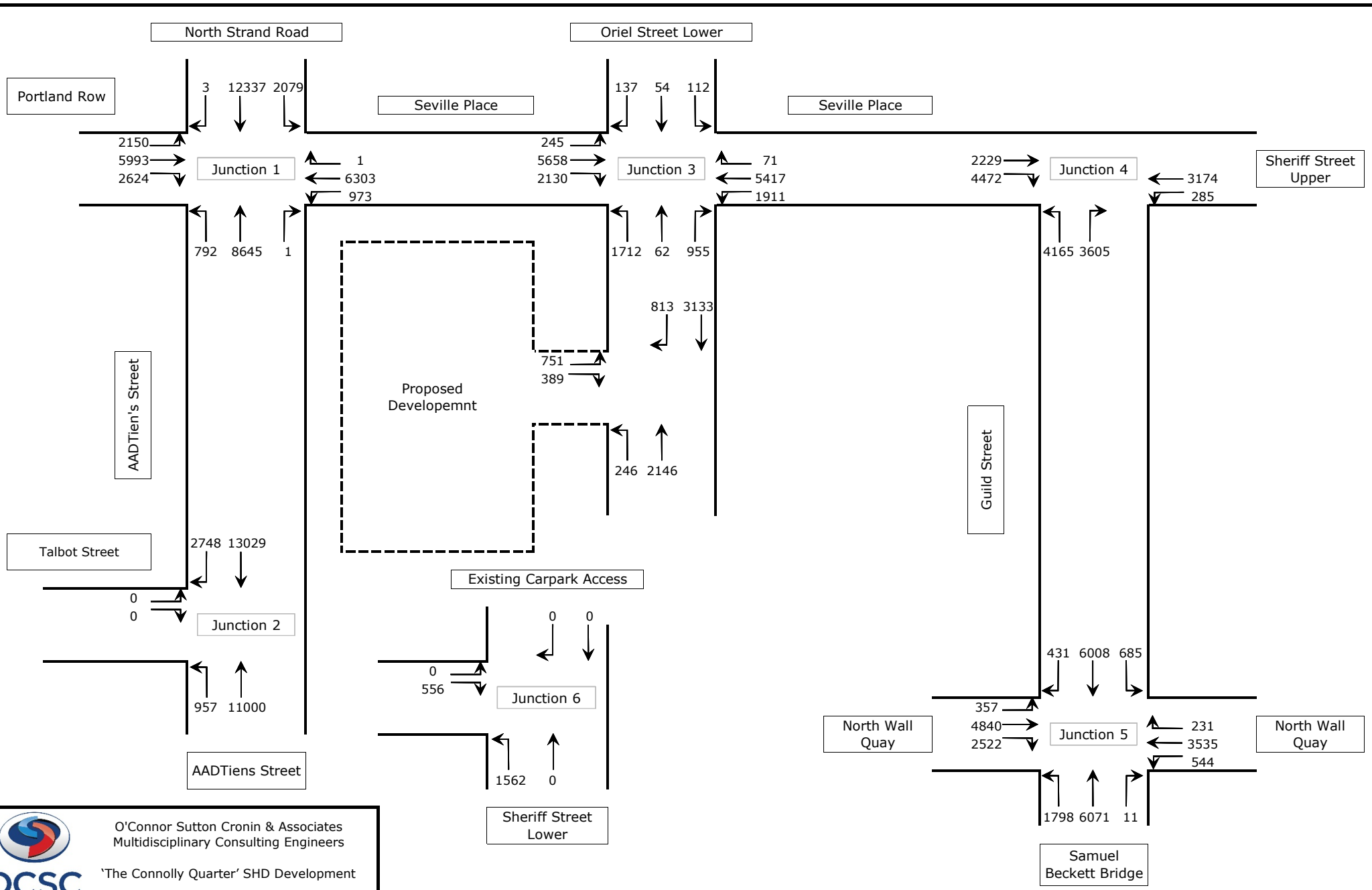
'The Connolly Quarter' SHD Development

Diagram 22: 2037 P.M. Peak Hour Flows – Do Something



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'The Connolly Quarter' SHD Development

Diagram 23: 2037 AADT Flows – Do Something

Appendix C: TRICS Output Files

Calculation Reference: AUDIT-322901-190307-0308

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : A - HOTELS
VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	HO	HOUNSLOW	2 days
02	SOUTH EAST		
	EX	ESSEX	1 days
03	SOUTH WEST		
	WL	WILTSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	TV	TEES VALLEY	1 days
10	WALES		
	CF	CARDIFF	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: Gross floor area
Actual Range: 2227 to 9850 (units: sqm)
Range Selected by User: 320 to 20000 (units: sqm)

Parking Spaces Range: Selected: 0 to 500 Actual: 0 to 500

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 11/05/18

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	2 days
Wednesday	4 days
Thursday	1 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	5
Edge of Town Centre	2

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:

Commercial Zone	2
Retail Zone	1
Built-Up Zone	4

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:

C1	7 days

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

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	2 days
500,001 or More	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	3 days
1.1 to 1.5	4 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	7 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	5 days
6a Excellent	2 days

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

LIST OF SITES relevant to selection parameters

1 CF-06-A-04 TRAVELODGE CARDIFF
THE FRIARY
CARDIFF

Town Centre
Built-Up Zone
Total Gross floor area: 3500 sqm
Survey date: MONDAY *16/07/12* *Survey Type: MANUAL*

2 EX-06-A-01 TRAVELODGE ESSEX
CHICHESTER ROAD
SOUTHEND-ON-SEA

Town Centre
Built-Up Zone
Total Gross floor area: 3000 sqm
Survey date: WEDNESDAY *23/10/13* *Survey Type: MANUAL*

3 GM-06-A-08 IBIS GREATER MANCHESTER
PORTLAND STREET
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 3600 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

4 HO-06-A-01 DAYS HOTEL HOUNSLOW
LAMPTON ROAD
HOUNSLOW

Edge of Town Centre
Commercial Zone
Total Gross floor area: 3475 sqm
Survey date: WEDNESDAY *16/06/10* *Survey Type: MANUAL*

5 HO-06-A-02 ETAP HOTEL HOUNSLOW
STAINES ROAD
HOUNSLOW

Edge of Town Centre
Retail Zone
Total Gross floor area: 4000 sqm
Survey date: WEDNESDAY *16/06/10* *Survey Type: MANUAL*

6 TV-06-A-04 THISTLE TEES VALLEY
FRY STREET
MIDDLESBROUGH

Town Centre
Commercial Zone
Total Gross floor area: 9850 sqm
Survey date: THURSDAY *03/10/13* *Survey Type: MANUAL*

7 WL-06-A-02 HOLIDAY INN EXPRESS WILTSHIRE
BRIDGE STREET
SWINDON

Town Centre
Built-Up Zone
Total Gross floor area: 2227 sqm
Survey date: WEDNESDAY *27/11/13* *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
CB-06-A-01	high level of parking
CF-06-A-03	high level of parking
CS-06-A-02	Low level of public transport
CS-06-A-03	high level of parking
DN-06-A-01	high level of parking
DS-06-A-02	high level of parking
GR-06-A-03	high level of parking
HI-06-A-04	Low level of public transport
NF-06-A-03	Low level of public transport
NT-06-A-02	high level of parking
NW-06-A-01	high level of parking
TW-06-A-03	high level of parking

MANUALLY DESELECTED SITES (Cont.)

Site Ref	Reason for Deselection
WA-06-A-01	high level of parking

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	4236	0.125	7	4236	0.243	7	4236	0.368
08:00 - 09:00	7	4236	0.155	7	4236	0.408	7	4236	0.563
09:00 - 10:00	7	4236	0.165	7	4236	0.253	7	4236	0.418
10:00 - 11:00	7	4236	0.182	7	4236	0.172	7	4236	0.354
11:00 - 12:00	7	4236	0.108	7	4236	0.172	7	4236	0.280
12:00 - 13:00	7	4236	0.128	7	4236	0.098	7	4236	0.226
13:00 - 14:00	7	4236	0.128	7	4236	0.105	7	4236	0.233
14:00 - 15:00	7	4236	0.064	7	4236	0.128	7	4236	0.192
15:00 - 16:00	7	4236	0.142	7	4236	0.128	7	4236	0.270
16:00 - 17:00	7	4236	0.189	7	4236	0.121	7	4236	0.310
17:00 - 18:00	7	4236	0.179	7	4236	0.142	7	4236	0.321
18:00 - 19:00	7	4236	0.132	7	4236	0.108	7	4236	0.240
19:00 - 20:00	7	4236	0.165	7	4236	0.125	7	4236	0.290
20:00 - 21:00	7	4236	0.101	7	4236	0.061	7	4236	0.162
21:00 - 22:00	7	4236	0.071	7	4236	0.040	7	4236	0.111
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.034			2.304			4.338

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:	2227 - 9850 (units: sqm)
Survey date date range:	01/01/10 - 11/05/18
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	13

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-322901-190307-0321

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	CN	CAMDEN	1 days
02	SOUTH EAST		
	EX	ESSEX	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
11	SCOTLAND		
	EB	CITY OF EDINBURGH	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: Gross floor area
Actual Range: 3960 to 45000 (units: sqm)
Range Selected by User: 186 to 175000 (units: sqm)

Parking Spaces Range: Selected: 0 to 5073 Actual: 0 to 5073

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 04/07/18

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	1 days
Tuesday	1 days
Wednesday	3 days
Friday	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:

Town Centre	6

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	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:

B1	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:

15,001 to 20,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	2 days
100,001 or More	1 days

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

Population within 5 miles:

125,001 to 250,000	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	4 days
1.1 to 1.5	1 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	2 days
No	4 days

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

PTAL Rating:

No PTAL Present	5 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 BR-02-A-02 PLANNING & ENGINEERING BRISTOL CITY
ST THOMAS STREET
BRISTOL

Town Centre
Built-Up Zone
Total Gross floor area: 5736 sqm
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

2 CA-02-A-05 OFFICES CAMBRIDGESHIRE
NEW ROAD
PETERBOROUGH

Town Centre
Built-Up Zone
Total Gross floor area: 8793 sqm
Survey date: TUESDAY *16/12/14* *Survey Type: MANUAL*

3 CN-02-A-03 PLANNING & ENGINEERING CAMDEN
FITZROY STREET
FITZROVIA

Town Centre
Built-Up Zone
Total Gross floor area: 26639 sqm
Survey date: WEDNESDAY *06/12/17* *Survey Type: MANUAL*

4 EB-02-A-06 REGUS OFFICES CITY OF EDINBURGH
ST ANDREW SQUARE
EDINBURGH

Town Centre
Built-Up Zone
Total Gross floor area: 4500 sqm
Survey date: WEDNESDAY *16/03/16* *Survey Type: MANUAL*

5 EX-02-A-03 HMRC ESSEX
VICTORIA AVENUE
SOUTHEND-ON-SEA

Town Centre
Built-Up Zone
Total Gross floor area: 45000 sqm
Survey date: WEDNESDAY *23/10/13* *Survey Type: MANUAL*

6 GM-02-A-08 REGUS GREATER MANCHESTER
FOUNTAIN STREET
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 3960 sqm
Survey date: MONDAY *26/09/16* *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
CI-02-A-02	Low level of parking
CI-02-A-03	Low level of parking
CS-02-A-01	Low level of public transport
CS-02-A-02	Low level of public transport
HM-02-A-01	Low level of parking
MG-02-A-01	No Public Transport
SO-02-A-01	high level of parking
TV-02-A-03	high level of parking
TV-02-A-04	Low level of parking
TW-02-A-07	high level of parking
WH-02-A-02	Low level of parking
WK-02-A-01	high level of parking
WO-02-A-01	Low level of public transport
WY-02-A-04	Low level of public transport

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	6	15771	0.126	6	15771	0.008	6	15771	0.134
07:30 - 08:00	6	15771	0.146	6	15771	0.014	6	15771	0.160
08:00 - 08:30	6	15771	0.154	6	15771	0.010	6	15771	0.164
08:30 - 09:00	6	15771	0.182	6	15771	0.007	6	15771	0.189
09:00 - 09:30	6	15771	0.148	6	15771	0.011	6	15771	0.159
09:30 - 10:00	6	15771	0.091	6	15771	0.008	6	15771	0.099
10:00 - 10:30	6	15771	0.033	6	15771	0.013	6	15771	0.046
10:30 - 11:00	6	15771	0.026	6	15771	0.007	6	15771	0.033
11:00 - 11:30	6	15771	0.024	6	15771	0.017	6	15771	0.041
11:30 - 12:00	6	15771	0.014	6	15771	0.007	6	15771	0.021
12:00 - 12:30	6	15771	0.013	6	15771	0.010	6	15771	0.023
12:30 - 13:00	6	15771	0.026	6	15771	0.020	6	15771	0.046
13:00 - 13:30	6	15771	0.019	6	15771	0.019	6	15771	0.038
13:30 - 14:00	6	15771	0.012	6	15771	0.005	6	15771	0.017
14:00 - 14:30	6	15771	0.010	6	15771	0.013	6	15771	0.023
14:30 - 15:00	6	15771	0.003	6	15771	0.036	6	15771	0.039
15:00 - 15:30	6	15771	0.013	6	15771	0.073	6	15771	0.086
15:30 - 16:00	6	15771	0.025	6	15771	0.129	6	15771	0.154
16:00 - 16:30	6	15771	0.010	6	15771	0.127	6	15771	0.137
16:30 - 17:00	6	15771	0.014	6	15771	0.139	6	15771	0.153
17:00 - 17:30	6	15771	0.011	6	15771	0.206	6	15771	0.217
17:30 - 18:00	6	15771	0.008	6	15771	0.129	6	15771	0.137
18:00 - 18:30	6	15771	0.003	6	15771	0.063	6	15771	0.066
18:30 - 19:00	6	15771	0.024	6	15771	0.031	6	15771	0.055
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.135			1.102			2.237

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:	3960 - 45000 (units: sqm)
Survey date date range:	01/01/10 - 04/07/18
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	14

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-322901-190307-0331

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	IS	ISLINGTON	1 days
	KN	KENSINGTON AND CHELSEA	1 days
	SK	SOUTHWARK	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	2 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: 20 to 294 (units:)
Range Selected by User: 6 to 493 (units:)

Parking Spaces Range: Selected: 0 to 386 Actual: 0 to 386

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 03/07/18

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	1 days
Tuesday	1 days
Thursday	3 days
Friday	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:

Town Centre	2
Edge of Town Centre	4

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	2
Built-Up Zone	3

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:

25,001 to 50,000	3 days
50,001 to 100,000	1 days
100,001 or More	2 days

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

Population within 5 miles:

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

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

Car ownership within 5 miles:

0.5 or Less	2 days
0.6 to 1.0	3 days
1.1 to 1.5	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	2 days
No	4 days

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

PTAL Rating:

No PTAL Present	3 days
6a Excellent	2 days
6b (High) Excellent	1 days

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

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	6	114	0.012	6	114	0.040	6	114	0.052
08:00 - 09:00	6	114	0.034	6	114	0.087	6	114	0.121
09:00 - 10:00	6	114	0.038	6	114	0.044	6	114	0.082
10:00 - 11:00	6	114	0.022	6	114	0.037	6	114	0.059
11:00 - 12:00	6	114	0.040	6	114	0.028	6	114	0.068
12:00 - 13:00	6	114	0.031	6	114	0.035	6	114	0.066
13:00 - 14:00	6	114	0.032	6	114	0.040	6	114	0.072
14:00 - 15:00	6	114	0.023	6	114	0.029	6	114	0.052
15:00 - 16:00	6	114	0.031	6	114	0.029	6	114	0.060
16:00 - 17:00	6	114	0.038	6	114	0.028	6	114	0.066
17:00 - 18:00	6	114	0.048	6	114	0.028	6	114	0.076
18:00 - 19:00	6	114	0.053	6	114	0.043	6	114	0.096
19:00 - 20:00	3	160	0.048	3	160	0.040	3	160	0.088
20:00 - 21:00	3	160	0.040	3	160	0.027	3	160	0.067
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.490			0.535			1.025

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:	20 - 294 (units:)
Survey date date range:	01/01/10 - 03/07/18
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	21

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

Site 1		
A.M. Peak Hour Model Calibration Summary		
	Average Queue	Modelled Queue
North Strand Road	10.0	11.5
	23.4	28.2
Portland Row	0.4	0.0
	18.7	18.6
	14.0	9.5
Amiens Street	4.2	3.1
	8.0	5.0
Seville Place	2.6	1.5
	10.9	9.1

Site 1		
P.M. Peak Hour Model Calibration Summary		
	Average Queue	Modelled Queue
North Strand Road	8.6	8.7
	17.1	19.6
Portland Row	1.5	1.5
	12.3	12.6
	4.7	2.6
Amiens Street	6.4	10.1
	19.8	18.5
Seville Place	2.7	1.5
	16.3	10.5

Site 3		
A.M. Peak Hour Model Calibration Summary		
	Average Queue	Modelled Queue
Seville Place (E)	6.3	4.6
Oriel Street Upper	1.0	0.1
Seville Place (W)	15.0	12.7
Oriel Street Lower	1.5	0.1

Site 3		
P.M. Peak Hour Model Calibration Summary		
	Average Queue	Modelled Queue
Seville Place (E)	9.3	5.4
Oriel Street Upper	1.5	0.1
Seville Place (W)	8.6	4.5
Oriel Street Lower	4.3	1.2

Appendix E: Model Output Files

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: 2018 Junction 1, 3 & Dev BASE.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 15:43:59

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\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	✓

A1 - AM Peak
D1 - 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	Item with worst overall PRC	Network within capacity
1	12/03/2019 15:43:52	12/03/2019 15:43:54	07:00	120	560.36	37.01	97.19	H1/1	1	3	H1/1	I/1	I/1	

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
AM Peak		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM				07:00	

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)
07:00-08:00	B	1	5	1755	62	1278	120	0.34	0.12	3.52	0.08	0.04	0.12
	Bx	1	0	Unrestricted	373	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	52	73	665	1279	120	6.07	12.04	60.22	15.92	1.39	17.31
	Cx	1	19	368	368	1915	120	0.22	0.02	0.11	0.32	0.00	0.32
	D	1	1	13572	5	760	120	0.02	0.00	0.00	0.00	0.00	0.00
	Dx	1	0	Unrestricted	19	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Ex	1	38	140	676	1800	120	0.60	0.11	0.56	1.60	0.00	1.60
	Gx	1	0	Unrestricted	341	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	I	1	0	-100	0	0	120	0.00	0.00	0.00	0.00	0.00	0.00
	Ix	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	J	1	19	362	373	1915	120	0.23	0.02	0.68	0.33	0.00	0.33
	Jx	1	3	2781	62	1985	120	0.03	0.00	0.01	0.01	0.00	0.01
	K	1	3	2680	62	1915	120	0.03	0.00	0.01	0.01	0.00	0.01
	Kx	1	0	Unrestricted	373	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	27	229	486	1779	120	0.57	1.38	105.90	1.10	0.03	1.13
	Ax1	1	28	221	458	1940	100	1.06	1.36	104.20	1.92	0.18	2.11
	E1	1	15	502	63	1532	32	33.01	1.46	12.94	8.20	0.52	8.73
	F1	1	30	201	210	1913	43	28.14	5.02	28.88	23.31	1.86	25.17
	Fx1	1	0	Unrestricted	712	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	G1	1	4	2355	48	1309	120	0.06	0.01	0.16	0.01	0.00	0.01
	H1	1	97	-7	676	1897	43	82.79	30.68	88.21	220.75	11.07	231.82
	Hx1	1	10	800	180	1800	120	0.11	0.01	0.07	0.08	0.00	0.08
	A2	1	30	201	486	1940	100	2.54	3.19	24.46	4.86	1.16	6.03
	Ax2	1	24	281	458	1940	120	0.29	0.04	0.21	0.52	0.00	0.52
	E2	1	55	64	311	2055	32	39.89	8.10	71.65	48.94	2.93	51.87
	F2	1	17	437	180	2080	61	15.69	3.17	18.21	11.14	1.17	12.31
	Fx2	1	0	Unrestricted	712	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	G2	1	67	34	534	1915	49	10.08	2.14	123.00	21.24	0.80	22.04
	H2	1	50	81	534	2080	61	20.51	11.81	33.97	43.20	4.31	47.51
	Hx2	1	10	800	180	1800	120	0.12	0.53	6.49	0.08	0.01	0.09
	E3	1	20	361	374	1915	120	0.23	0.02	0.12	0.34	0.00	0.34
	G3	1	69	30	582	1800	120	29.10	15.97	229.59	66.82	5.81	72.62
	Hx3	1	0	Unrestricted	204	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	G4	1	65	38	292	1075	49	47.59	9.36	107.64	54.81	3.48	58.29
	Hx4	1	0	Unrestricted	204	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effective green (s (per cycle))
07:00-08:00	B	1	62	62	0		1278	1278	5		1755	0.00	120	120
	Bx	1	373	373	0		Unrestricted	Unrestricted	0		Unrestricted	0.48	120	120
	C	1	665	665	0		1279	1279	52		73	0.81	120	120
	Cx	1	368	368	0		1915	1915	19		368	0.27	120	120
	D	1	5	5	0		760	760	1		13572	0.00	120	120
	Dx	1	19	19	0		Unrestricted	Unrestricted	0		Unrestricted	0.46	120	120
	Ex	1	676	676	0		1800	1800	38		140	0.81	120	120
	Gx	1	341	341	0		Unrestricted	Unrestricted	0		Unrestricted	1.24	120	120
	I	1	0	0	0		0	0	0		-100	0.00	120	120
	Ix	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120	120
	J	1	373	373	0		1915	1915	19		362	0.46	120	120
	Jx	1	62	62	0		1985	1985	3		2781	0.00	120	120
	K	1	62	62	0		1915	1915	3		2680	0.00	120	120
	Kx	1	373	373	0		Unrestricted	Unrestricted	0		Unrestricted	0.43	120	120
	A1	1	486	486	0		1779	1779	27		229	0.32	120	120
	Ax1	1	458	458	0		1940	1632	28		221	0.74	100	101
	E1	1	63	63	0		1532	421	15		502	0.27	32	33
	F1	1	210	210	-1		1913	701	30		201	0.00	43	44
	Fx1	1	712	712	-1		Unrestricted	Unrestricted	0		Unrestricted	0.44	120	120
	G1	1	48	48	-1		1309	1309	4		2355	1.04	120	120

	H1	1	676	676	-1		1897	696	97	✓	-7	0.00	43	44
	Hx1	1	180	180	-1		1800	1800	10		800	1.24	120	120
	A2	1	486	486	0		1940	1624	30		201	0.00	100	101
	Ax2	1	458	458	0		1940	1940	24		281	0.76	120	120
	E2	1	311	311	0		2055	565	55		64	0.27	32	33
	F2	1	180	180	-1		2080	1075	17		437	0.00	61	62
	Fx2	1	712	712	-1		Unrestricted	Unrestricted	0		Unrestricted	0.44	120	120
	G2	1	534	534	0		1915	792	67		34	1.04	49	50
	H2	1	534	534	-1		2080	1075	50		81	0.00	61	62
	Hx2	1	180	180	-1		1800	1800	10		800	0.94	120	120
	E3	1	374	374	0		1915	1915	20		361	0.27	120	120
	G3	1	582	582	-1		1800	839	69		30	0.00	120	120
	Hx3	1	204	204	-1		Unrestricted	Unrestricted	0		Unrestricted	1.02	120	120
	G4	1	292	292	0		1075	448	65		38	0.00	49	50
	Hx4	1	204	204	-1		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
07:00-08:00	B	1	2.40	0.34	0.00	0.00	0.08	0.08	4.94	3.01	0.06	0.04	0.04
	Bx	1	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.80	6.07	0.70	0.42	15.92	15.92	16.71	98.59	12.55	1.39	1.39
	Cx	1	13.80	0.22	0.00	0.02	0.32	0.32	0.00	0.00	0.00	0.00	0.00
	D	1	6.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ex	1	13.80	0.60	0.00	0.11	1.60	1.60	0.00	0.00	0.00	0.00	0.00
	Gx	1	9.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	I	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ix	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	J	1	2.40	0.23	0.00	0.02	0.33	0.33	0.00	0.00	0.00	0.00	0.00
	Jx	1	2.40	0.03	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	K	1	3.60	0.03	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Kx	1	6.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	1.00	0.57	0.00	0.08	1.10	1.10	0.55	0.38	2.31	0.03	0.03
	Ax1	1	1.00	1.06	0.08	0.05	1.92	1.92	3.95	16.45	1.64	0.18	0.18
	E1	1	7.80	33.01	0.56	0.01	8.20	8.20	66.01	41.20	0.39	0.52	0.52
	F1	1	12.00	28.14	1.58	0.06	23.31	23.31	70.60	146.35	1.91	1.86	1.86
	Fx1	1	13.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	G1	1	2.40	0.06	0.00	0.00	0.01	0.01	0.36	0.15	0.02	0.00	0.00
	H1	1	24.00	82.79	7.02	8.52	220.75	220.75	130.63	650.04	233.00	11.07	11.07
	Hx1	1	5.61	0.11	0.00	0.01	0.08	0.08	0.00	0.00	0.00	0.00	0.00
	A2	1	9.00	2.54	0.28	0.06	4.86	4.86	19.11	90.96	1.91	1.16	1.16
	Ax2	1	12.00	0.29	0.00	0.04	0.52	0.52	0.00	0.00	0.00	0.00	0.00
	E2	1	7.80	39.89	3.11	0.33	48.94	48.94	75.14	223.73	9.95	2.93	2.93
	F2	1	12.00	15.69	0.77	0.02	11.14	11.14	51.74	92.63	0.50	1.17	1.17
	Fx2	1	13.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	G2	1	1.20	10.08	0.81	0.69	21.24	21.24	11.98	43.48	20.50	0.80	0.80
	H2	1	24.00	20.51	2.80	0.24	43.20	43.20	64.40	336.59	7.32	4.31	4.31
	Hx2	1	5.67	0.12	0.00	0.01	0.08	0.08	0.34	0.45	0.17	0.01	0.01
	E3	1	13.80	0.23	0.00	0.02	0.34	0.34	0.00	0.00	0.00	0.00	0.00
	G3	1	4.80	29.10	3.93	0.77	66.82	66.82	79.55	439.99	23.01	5.81	5.81
	Hx3	1	5.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	G4	1	6.00	47.59	3.26	0.60	54.81	54.81	94.95	259.54	17.72	3.48	3.48
	Hx4	1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Max end of green queue (PCU)	Max end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
07:00-08:00	B	1	0.00	0.12	3.48	3.52	0.00	0.00	0.00			0.00	0.00	0.00	
	Bx	1	0.00	0.00	3.48	0.00	0.00	0.00	0.00			17.00	0.00	17.00	
	C	1	0.00	12.04	20.00	60.22	0.00	0.00	0.00			26.00	0.00	26.00	
	Cx	1	0.00	0.02	20.00	0.11	0.00	0.00	0.00			19.00	0.00	19.00	
	D	1	0.00	0.00	8.70	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	Ex	1	0.00	0.11	20.00	0.56	0.00	0.00	0.00			26.00	0.00	26.00	
	Gx	1	0.00	0.00	13.26	0.00	0.00	0.00	0.00			67.00	0.00	67.00	
	I	1	0.00	0.00	2.61	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	Ix	1	0.00	0.00	2.61	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	J	1	0.00	0.02	3.48	0.68	0.00	0.00	0.00			15.00	0.00	15.00	
	Jx	1	0.00	0.00	3.48	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	K	1	0.00	0.00	5.22	0.01	0.00	0.00	0.00			0.00	0.00	0.00	
	Kx	1	0.00	0.00	8.96	0.00	0.00	0.00	0.00			12.00	0.00	12.00	
	A1	1	0.00	1.38	1.30	105.90	0.00	0.00	0.00			19.00	0.00	19.00	
	Ax1	1	0.00	1.36	1.30	104.20	0.00	0.00	0.00	0.05	0.60	8.00	0.07	8.07	
	E1	1	0.00	1.46	11.30	12.94	0.00	0.00	0.00	0.01	1.39	5.00	0.00	5.00	
	F1	1	0.00	5.02	17.39	28.88	0.00	0.00	0.00	0.06	4.50	0.00	0.00	0.00	
	Fx1	1	0.00	0.00	19.18	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	G1	1	0.00	0.01	3.48	0.16	0.00	0.00	0.00			85.00	0.00	85.00	
	H1	1	0.00	30.68	34.78	88.21	0.00	0.00	0.00	8.52	22.80	0.00	0.00	0.00	
	Hx1	1	0.00	0.01	8.13	0.07	0.00	0.00	0.00			74.00	0.00	74.00	
	A2	1	0.00	3.19	13.04	24.46	0.00	0.00	0.00	0.06	2.79	0.00	0.54	0.54	
	Ax2	1	0.00	0.04	17.39	0.21	0.00	0.00	0.00			27.00	0.00	27.00	
	E2	1	0.00	8.10	11.30	71.65	0.00	0.00	0.00	0.33	7.16	0.00	0.00	0.00	
	F2	1	0.00	3.17	17.39	18.21	0.00	0.00	0.00	0.02	2.92	0.00	0.00	0.00	
	Fx2	1	0.00	0.00	19.29	0.00	0.00	0.00	0.00			0.00	0.00	0.00	
	G2	1	0.00	2.14	1.74	123.00	0.23	0.00	0.00	0.69	2.14	0.00	0.36	0.36	
	H2	1	0.00	11.81	34.78	33.97	0.00	0.00	0.00	0.24	8.85	0.00	0.00	0.00	
	Hx2	1	0.00	0.53	8.22	6.49	0.00	0.00	0.00			56.00	0.00	56.00	
	E3	1	0.00	0.02	20.00	0.12	0.00	0.00	0.00			19.00	0.00	19.00	
	G3	1	0.00	15.97	6.96	229.59	2.13	0.00	0.00			0.00	64.03	64.03	
	Hx3	1	0.00	0.00	8.44	0.00	0.00	0.00	0.00			42.00	0.00	42.00	
	G4	1	0.00	9.36	8.70	107.64	0.03	0.00	0.00	0.60	6.28	0.00	0.00	0.00	
	Hx4	1	0.00	0.00	8.69	0.00	0.00	0.00	0.00			25.00	0.00	25.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)

	B	1	1.24	0.05	26.27	2.74
	Bx	1	7.46	0.25	30.00	2.40
	C	1	76.48	3.67	20.84	19.87
	Cx	1	42.32	1.43	29.52	14.02
	D	1	0.25	0.01	29.88	6.02
	Dx	1	1.90	0.06	30.00	12.00
	Ex	1	77.74	2.70	28.75	14.40
	Gx	1	25.99	0.87	30.00	9.15
	I	1	0.00	0.00	0.00	0.00
	Ix	1	0.00	0.00	0.00	0.00
	J	1	7.46	0.27	27.40	2.63
	Jx	1	1.24	0.04	29.64	2.43
	K	1	1.86	0.06	29.74	3.63
	Kx	1	19.23	0.64	30.00	6.19
	A1	1	3.65	0.21	17.15	1.57
	Ax1	1	3.44	0.26	13.08	2.06
	E1	1	4.10	0.71	5.73	40.81
07:00-08:00	F1	1	21.00	2.34	8.97	40.14
	Fx1	1	78.45	2.62	30.00	13.23
	G1	1	0.96	0.03	29.24	2.46
	H1	1	135.20	20.05	6.74	106.79
	Hx1	1	8.41	0.29	29.42	5.72
	A2	1	36.45	1.56	23.40	11.54
	Ax2	1	45.80	1.56	29.30	12.29
	E2	1	20.22	4.12	4.91	47.69
	F2	1	18.00	1.38	13.00	27.69
	Fx2	1	78.92	2.63	30.00	13.31
	G2	1	5.34	1.67	3.19	11.28
	H2	1	106.80	6.60	16.18	44.51
	Hx2	1	8.50	0.29	29.40	5.79
	E3	1	43.01	1.46	29.51	14.03
	G3	1	23.28	5.48	4.25	33.90
	Hx3	1	9.91	0.33	30.00	5.83
	G4	1	14.60	4.35	3.36	53.59
	Hx4	1	10.20	0.34	30.00	6.00

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
	B	1	0.00	0.00	✓	0.12			1.00	0.00	0.12	0.12
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	12.04			1.00	0.00	17.31	17.31
	Cx	1	0.00	0.00	✓	0.02			1.00	0.00	0.32	0.32
	D	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ex	1	0.00	0.00	✓	0.11			1.00	0.00	1.60	1.60
	Gx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	I	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ix	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	J	1	0.00	0.00	✓	0.02			1.00	0.00	0.33	0.33
	Jx	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	K	1	0.00	0.00	✓	0.00			1.00	0.00	0.01	0.01
	Kx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	A1	1	0.00	0.00	✓	1.38			1.00	0.00	1.13	1.13
	Ax1	1	0.00	0.00	✓	1.36	0.05	0.60	1.00	0.00	2.11	2.11
	E1	1	0.00	0.00	✓	1.46	0.01	1.39	1.00	0.00	8.73	8.73
07:00-08:00	F1	1	0.00	0.00	✓	5.02	0.06	4.50	1.00	0.00	25.17	25.17
	Fx1	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	G1	1	0.00	0.00	✓	0.01			1.00	0.00	0.01	0.01
	H1	1	0.00	0.00	✓	32.72	10.56	24.84	1.00	0.00	231.82	231.82
	Hx1	1	0.00	0.00	✓	0.01			1.00	0.00	0.08	0.08
	A2	1	0.00	0.00	✓	3.19	0.06	2.79	1.00	0.00	6.03	6.03
	Ax2	1	0.00	0.00	✓	0.04			1.00	0.00	0.52	0.52
	E2	1	0.00	0.00	✓	8.10	0.34	7.16	1.00	0.00	51.87	51.87
	F2	1	0.00	0.00	✓	3.17	0.02	2.92	1.00	0.00	12.31	12.31
	Fx2	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	G2	1	0.00	0.00	✓	2.14	0.69	2.14	1.00	0.00	22.04	22.04
	H2	1	0.00	0.00	✓	11.82	0.25	8.85	1.00	0.00	47.51	47.51
	Hx2	1	0.00	0.00	✓	0.53			1.00	0.00	0.09	0.09
	E3	1	0.00	0.00	✓	0.02			1.00	0.00	0.34	0.34
	G3	1	0.00	0.00	✓	15.98			1.00	0.00	72.62	72.62
	Hx3	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	G4	1	0.00	0.00	✓	9.36	0.60	6.28	1.00	0.00	58.29	58.29
	Hx4	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (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 overall PRC	Network within capacity
1	12/03/2019 15:43:52	12/03/2019 15:43:54	07:00	120	560.36	37.01	97.19	H1/1	1	3	H1/1	I/1	I/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
07:00-08:00	97	-100	11262	3570	11.83	525.59	34.76	560.36

Network Results: Flows and signals

Time	Calculated flow entering	Calculated flow out	Flow discrepancy	Adjusted flow	Degree of	DOS Threshold	Practical reserve	Actual green (s	Effective green (s

Segment	(PCU/hr)	(PCU/hr)	(PCU/hr)	warning	saturation (%)	exceeded	capacity (%)	(per cycle))	(per cycle))
07:00-08:00	11262	11262	-8		97	✓	-100	3570	3580

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
07:00-08:00	10.02	11.83	24.90	12.11	525.59	525.59	24.65	2443.53	332.97	34.76	34.76

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
07:00-08:00	229.59	0.00	1022.00	65.01	1087.01

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
07:00-08:00	939.39	68.35	13.74

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
07:00-08:00	0.00	0.00	✓	1.00	0.00	0.00	560.36	560.36

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		A	B	C	D
From	A	0.0	15.5	27.1	25.1
	B	18.2	0.0	16.8	14.7
	C	34.2	22.3	0.0	31.9
	D	21.5	8.4	20.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
4	B	D	3	14.74	3	14.74
5	B	C	51	16.76	51	16.76
7	C	D	13	31.87	13	31.87
8	C	B	203	22.27	203	22.27
10	D	C	3	20.05	3	20.05
11	D	B	1	8.42	1	8.42
14	A	C	314	27.14	314	27.14
15	A	B	169	15.51	169	15.51
20	A	D	3	25.11	3	25.11
21	B	A	8	18.18	8	18.18
22	C	A	449	34.20	449	34.20
23	D	A	1	21.47	1	21.47

Average Journey Time (s) for Local Matrix: 2

		To		
		1	2	3
From	1	0.0	0.0	8.8
	2	0.0	0.0	0.0
	3	6.1	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	3	373	8.81	373	8.81
2	3	1	62	6.06	62	6.06
3	2	1	0	0.00	0	0.00
4	2	3	0	0.00	0	0.00
5	3	2	0	0.00	0	0.00
6	1	2	0	0.00	0	0.00

Average Journey Time (s) for Local Matrix: 3

		To			
		1	2	3	4
From	1	0.0	0.0	88.9	121.2
	2	42.3	0.0	66.9	59.6
	3	45.6	49.3	0.0	0.0
	4	0.0	70.9	68.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	3	2	30	49.28	30	49.28
2	2	3	146	66.90	146	66.90
3	2	3	146	66.82	146	66.82
4	4	2	311	70.87	311	70.87
5	4	3	32	68.07	32	68.07
6	4	3	32	68.15	32	68.15
7	2	4	534	59.59	534	59.59
8	2	1	24	42.19	24	42.19
9	2	1	24	42.37	24	42.37
10	1	4	142	121.19	142	121.19
12	1	3	267	57.82	267	57.82
13	3	1	180	51.68	180	51.68
14	3	1	180	39.48	180	39.48
15	1	3	267	120.02	267	120.02
16	1	3	267	57.74	267	57.74
17	1	3	267	120.10	267	120.10

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			62	1278	120	0.00	5	1755	2.74	0.34	4.94	0.12		100	100	0.00	0.12
Bx	1	(untitled)	3			373	Unrestricted	120	17.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			665	1279	120	26.00	52	73	19.87	6.07	16.71	12.04		100	100	0.00	17.31
Cx	1	(untitled)	9			368	1915	120	19.00	19	368	14.02	0.22	0.00	0.02		100	100	0.00	0.32
D	1	(untitled)	1			5	760	120	120.00	1	13572	6.02	0.02	0.00	0.00		100	100	0.00	0.00
Dx	1	(untitled)				19	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			676	1800	120	26.00	38	140	14.40	0.60	0.00	0.11		100	100	0.00	1.60
Gx	1	(untitled)				341	Unrestricted	120	67.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			0	0	120	120.00	0	-100	0.00	0.00	0.00	0.00		100	100	0.00	0.00
Ix	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			373	1915	120	15.00	19	362	2.63	0.23	0.00	0.02		100	100	0.00	0.33
Jx	1	(untitled)	3			62	1985	120	0.00	3	2781	2.43	0.03	0.00	0.00		100	100	0.00	0.01
K	1	(untitled)	4			62	1915	120	0.00	3	2680	3.63	0.03	0.00	0.00		100	100	0.00	0.01
Kx	1	(untitled)				373	Unrestricted	120	12.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			486 <	1779	120	19.00	27	229	1.57	0.57	0.55	1.38 +		100	100	0.00	1.13
Ax1	1	(untitled)	2	1	A	458 <	1940	100	8.07	28	221	2.06	1.06	3.95	1.36 +	0.60	100	100	0.00	2.11
E1	1	(untitled)	5	2	C	63	1532	32	5.00	15	502	40.81	33.01	66.01	1.46	1.39	100	100	0.00	8.73
F1	1	(untitled)	5	2	B	210	1913	43	0.00	30	201	40.14	28.14	70.60	5.02	4.50	100	100	0.00	25.17
Fx1	1	(untitled)				712	Unrestricted	120	0.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	1	(untitled)	7			48	1309	120	85.00	4	2355	2.46	0.06	0.36	0.01		100	100	0.00	0.01
H1	1	(untitled)	5	2	B	676	1897	43	0.00	97	-7	106.79	82.79	130.63	30.68	22.80	100	100	0.00	231.82
Hx1	1	(untitled)	3			180	1800	120	74.00	10	800	5.72	0.11	0.00	0.01		100	100	0.00	0.08
A2	1	(untitled)	2	1	A	486	1940	100	0.54	30	201	11.54	2.54	19.11	3.19	2.79	100	100	0.00	6.03
Ax2	1	(untitled)	10			458	1940	120	27.00	24	281	12.29	0.29	0.00	0.04		100	100	0.00	0.52
E2	1	(untitled)	5	2	C	311	2055	32	0.00	55	64	47.69	39.89	75.14	8.10	7.16	100	100	0.00	51.87
F2	1	(untitled)	5	2	A	180	2080	61	0.00	17	437	27.69	15.69	51.74	3.17	2.92	100	100	0.00	12.31
Fx2	1	(untitled)				712	Unrestricted	120	0.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	1	(untitled)	5	2	D	534 <	1915	49	0.36	67	34	11.28	10.08	11.98	2.14 +	2.14	100	100	0.00	22.04
H2	1	(untitled)	5	2	A	534	2080	61	0.00	50	81	44.51	20.51	64.40	11.81	8.85	100	100	0.00	47.51
Hx2	1	(untitled)	3			180	1800	120	56.00	10	800	5.79	0.12	0.34	0.53		100	100	0.00	0.09
E3	1	(untitled)	8			374	1915	120	19.00	20	361	14.03	0.23	0.00	0.02		100	100	0.00	0.34
G3	1	(untitled)	6			582 <	1800	120	64.03	69	30	33.90	29.10	79.55	15.97 +		100	100	0.00	72.62
Hx3	1	(untitled)				204	Unrestricted	120	42.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	1	(untitled)	5	2	E	292 <	1075	49	0.00	65	38	53.59	47.59	94.95	9.36 +	6.28	100	100	0.00	58.29
Hx4	1	(untitled)				204	Unrestricted	120	25.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	939.39	68.35	13.74	24.90	12.11	525.59	34.76	0.00	560.36
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	939.39	68.35	13.74	24.90	12.11	525.59	34.76	0.00	560.36

- *< = 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

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

Filename: 2018 Junction 1, 3 & Dev BASE.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 15:45:49

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	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	✓

A2 - PM Peak
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 overall PRC	Network within capacity
2	12/03/2019 15:44:49	12/03/2019 15:44:50	16:15	120	513.70	33.67	91.82	H1/1	1	3	H1/1	I/1	I/1	

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
PM Peak		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				16:15	

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)
16:15-17:15	B	1	21	327	232	1147	120	1.23	0.94	27.15	1.12	0.29	1.41
	Bx	1	0	Unrestricted	147	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	34	165	488	1497	120	1.19	1.73	8.66	2.28	0.43	2.71
	Cx	1	32	177	622	1915	120	0.45	0.08	0.39	1.11	0.00	1.11
	D	1	4	2280	28	757	120	0.15	0.01	0.10	0.02	0.00	0.02
	Dx	1	0	Unrestricted	21	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Ex	1	26	247	466	1800	120	0.36	1.52	7.62	0.67	0.05	0.72
	Gx	1	0	Unrestricted	620	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	I	1	0	-100	0	0	120	0.00	0.00	0.00	0.00	0.00	0.00
	Ix	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	J	1	8	1097	144	1915	120	0.08	0.00	0.09	0.04	0.00	0.04
	Jx	1	12	663	234	1985	120	0.12	0.01	0.23	0.11	0.00	0.11
	K	1	12	637	234	1915	120	0.13	0.01	0.16	0.12	0.00	0.12
	Kx	1	0	Unrestricted	144	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	27	229	513	1875	120	0.54	0.08	5.92	1.10	0.00	1.10
	Ax1	1	29	211	471	1940	100	1.19	1.36	104.50	2.20	0.41	2.61
	E1	1	10	822	76	1532	60	15.52	1.45	12.87	4.65	0.47	5.12
	F1	1	90	0	473	1917	32	67.62	18.49	106.33	126.16	6.81	132.97
	Fx1	1	0	Unrestricted	458	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	G1	1	18	402	196	1094	120	0.90	1.47	42.23	0.70	0.08	0.78
	H1	1	92	-2	478	1893	32	73.54	19.56	56.25	138.66	7.17	145.84
	Hx1	1	23	290	415	1800	120	0.30	0.03	0.42	0.49	0.00	0.49
	A2	1	32	185	513	1940	100	2.62	3.36	25.76	5.30	1.25	6.54
	Ax2	1	24	271	471	1940	120	0.30	0.04	0.22	0.55	0.00	0.55
	E2	1	54	67	562	2055	60	21.78	10.46	92.50	48.27	3.93	52.21
	F2	1	48	88	415	2080	49	27.41	10.25	58.93	44.87	3.79	48.66
	Fx2	1	0	Unrestricted	458	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	G2	1	37	144	358	1915	60	7.56	1.56	89.54	10.67	0.59	11.26
	H2	1	43	111	370	2080	49	26.38	8.89	25.57	38.50	3.27	41.77
	Hx2	1	23	290	415	1800	120	0.86	8.68	105.69	1.41	1.37	2.77
	E3	1	38	139	638	1915	120	1.54	2.23	11.13	3.88	0.82	4.70
	G3	1	51	76	554	1800	120	14.81	10.73	154.25	32.37	3.87	36.24
	Hx3	1	0	Unrestricted	513	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	G4	1	34	165	100	580	60	32.71	2.53	29.11	12.90	0.94	13.84
	Hx4	1	0	Unrestricted	513	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effective green (s (per cycle))
16:15-17:15	B	1	232	232	0		1147	1100	21		327	0.00	120	120
	Bx	1	147	147	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120	120
	C	1	488	488	0		1497	1436	34		165	0.67	120	120
	Cx	1	622	622	0		1915	1915	32		177	0.24	120	120
	D	1	28	28	0		757	741	4		2280	0.00	120	120
	Dx	1	21	21	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	120	120
	Ex	1	466	466	0		1800	1797	26		247	0.67	120	120
	Gx	1	620	620	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	120	120
	I	1	0	0	0		0	0	0		-100	0.00	120	120
	Ix	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120	120
	J	1	144	144	0		1915	1915	8		1097	0.48	120	120
	Jx	1	234	234	0		1985	1985	12		663	0.00	120	120
	K	1	234	234	0		1915	1915	12		637	0.00	120	120
	Kx	1	144	144	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	120	120
	A1	1	513	513	0		1875	1875	27		229	0.32	120	120
	Ax1	1	471	471	0		1940	1629	29		211	0.62	100	101
	E1	1	76	76	0		1532	779	10		822	0.34	60	61
	F1	1	473	473	0		1917	527	90		0	0.00	32	33
	Fx1	1	458	458	-1		Unrestricted	Unrestricted	0		Unrestricted	0.72	120	120
	G1	1	196	196	-1		1094	1094	18		402	0.77	120	120

	H1	1	478	478	-1		1893	521	92	✓	-2	0.00	32	33
	Hx1	1	415	415	0		1800	1800	23		290	1.41	120	120
	A2	1	513	513	0		1940	1625	32		185	0.00	100	101
	Ax2	1	471	471	0		1940	1940	24		271	0.75	120	120
	E2	1	562	562	0		2055	1045	54		67	0.34	60	61
	F2	1	415	415	0		2080	867	48		88	0.00	49	50
	Fx2	1	458	458	-1		Unrestricted	Unrestricted	0		Unrestricted	0.72	120	120
	G2	1	358	358	0		1915	970	37		144	0.77	60	61
	H2	1	370	370	-1		2080	867	43		111	0.00	49	50
	Hx2	1	415	415	0		1800	1800	23		290	1.14	120	120
	E3	1	638	638	0		1915	1692	38		139	0.24	120	120
	G3	1	554	554	-1		1800	1084	51		76	0.00	120	120
	Hx3	1	513	513	-1		Unrestricted	Unrestricted	0		Unrestricted	1.02	120	120
	G4	1	100	100	0		580	295	34		165	0.00	60	61
	Hx4	1	513	513	-1		Unrestricted	Unrestricted	0		Unrestricted	0.83	120	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
16:15-17:15	B	1	2.40	1.23	0.04	0.04	1.12	1.12	9.87	21.63	1.26	0.29	0.29
	Bx	1	2.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	13.80	1.19	0.03	0.13	2.28	2.28	7.03	26.48	7.84	0.43	0.43
	Cx	1	13.80	0.45	0.00	0.08	1.11	1.11	0.00	0.00	0.00	0.00	0.00
	D	1	6.00	0.15	0.00	0.00	0.02	0.02	0.51	0.11	0.03	0.00	0.00
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ex	1	13.80	0.36	0.00	0.05	0.67	0.67	0.87	2.70	1.36	0.05	0.05
	Gx	1	9.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	I	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ix	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	J	1	2.40	0.08	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00
	Jx	1	2.40	0.12	0.00	0.01	0.11	0.11	0.00	0.00	0.00	0.00	0.00
	K	1	3.60	0.13	0.00	0.01	0.12	0.12	0.00	0.00	0.00	0.00	0.00
	Kx	1	6.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	1.00	0.54	0.00	0.08	1.10	1.10	0.00	0.00	0.00	0.00	0.00
	Ax1	1	1.00	1.19	0.10	0.06	2.20	2.20	8.63	38.88	1.76	0.41	0.41
	E1	1	7.80	15.52	0.32	0.01	4.65	4.65	49.37	37.37	0.16	0.47	0.47
	F1	1	12.00	67.62	5.50	3.38	126.16	126.16	114.80	446.78	96.24	6.81	6.81
	Fx1	1	13.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	G1	1	2.40	0.90	0.03	0.02	0.70	0.70	3.28	5.84	0.59	0.08	0.08
	H1	1	24.00	73.54	5.60	4.16	138.66	138.66	119.71	455.13	117.07	7.17	7.17
	Hx1	1	5.61	0.30	0.00	0.03	0.49	0.49	0.00	0.00	0.00	0.00	0.00
	A2	1	9.00	2.62	0.30	0.07	5.30	5.30	19.40	97.32	2.18	1.25	1.25
	Ax2	1	12.00	0.30	0.00	0.04	0.55	0.55	0.00	0.00	0.00	0.00	0.00
	E2	1	7.80	21.78	3.09	0.31	48.27	48.27	55.81	304.32	9.33	3.93	3.93
	F2	1	12.00	27.41	2.94	0.22	44.87	44.87	72.79	295.51	6.55	3.79	3.79
	Fx2	1	13.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	G2	1	1.20	7.56	0.64	0.11	10.67	10.67	13.05	43.48	3.23	0.59	0.59
	H2	1	24.00	26.38	2.55	0.16	38.50	38.50	70.55	256.30	4.74	3.27	3.27
	Hx2	1	5.67	0.86	0.06	0.03	1.41	1.41	26.25	107.91	1.04	1.37	1.37
	E3	1	13.80	1.54	0.16	0.11	3.88	3.88	10.21	61.75	3.41	0.82	0.82
	G3	1	4.80	14.81	2.01	0.27	32.37	32.37	55.73	300.78	7.95	3.87	3.87
	Hx3	1	5.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	G4	1	6.00	32.71	0.82	0.09	12.90	12.90	74.81	72.22	2.59	0.94	0.94
	Hx4	1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Max end of green queue (PCU)	Max end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
16:15-17:15	B	1	0.00	0.94	3.48	27.15	0.00	0.00	0.00			0.00	3.79	3.79	
	Bx	1	0.00	0.00	3.48	0.00	0.00	0.00	0.00			11.00	0.00	11.00	
	C	1	0.00	1.73	20.00	8.66	0.00	0.00	0.00			26.00	4.71	30.71	
	Cx	1	0.00	0.08	20.00	0.39	0.00	0.00	0.00			2.00	0.00	2.00	
	D	1	0.00	0.01	8.70	0.10	0.00	0.00	0.00			119.00	0.99	119.99	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	Ex	1	0.00	1.52	20.00	7.62	0.00	0.00	0.00			26.00	0.18	26.18	
	Gx	1	0.00	0.00	13.26	0.00	0.00	0.00	0.00			19.00	0.00	19.00	
	I	1	0.00	0.00	2.61	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	Ix	1	0.00	0.00	2.61	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	J	1	0.00	0.00	3.48	0.09	0.00	0.00	0.00			12.00	0.00	12.00	
	Jx	1	0.00	0.01	3.48	0.23	0.00	0.00	0.00			0.00	0.00	0.00	
	K	1	0.00	0.01	5.22	0.16	0.00	0.00	0.00			0.00	0.00	0.00	
	Kx	1	0.00	0.00	8.96	0.00	0.00	0.00	0.00			13.00	0.00	13.00	
	A1	1	0.00	0.08	1.30	5.92	0.00	0.00	0.00			19.00	0.00	19.00	
	Ax1	1	0.00	1.36	1.30	104.50	0.00	0.00	0.00	0.06	1.35	0.00	0.22	0.22	
	E1	1	0.00	1.45	11.30	12.87	0.00	0.00	0.00	0.01	1.25	25.00	0.00	25.00	
	F1	1	0.00	18.49	17.39	106.33	0.04	0.00	0.00	3.38	14.81	0.00	0.00	0.00	
	Fx1	1	0.00	0.00	19.18	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	G1	1	0.00	1.47	3.48	42.23	0.00	0.00	0.00			29.00	0.00	29.00	
	H1	1	0.00	19.56	34.78	56.25	0.00	0.00	0.00	4.16	15.71	0.00	0.00	0.00	
	Hx1	1	0.00	0.03	8.13	0.42	0.00	0.00	0.00			83.00	0.00	83.00	
	A2	1	0.00	3.36	13.04	25.76	0.00	0.00	0.00	0.07	3.02	0.00	0.51	0.51	
	Ax2	1	0.00	0.04	17.39	0.22	0.00	0.00	0.00			19.00	0.00	19.00	
	E2	1	0.00	10.46	11.30	92.50	0.00	0.00	0.00	0.31	10.38	3.00	0.00	3.00	
	F2	1	0.00	10.25	17.39	58.93	0.00	0.00	0.00	0.22	8.29	0.00	3.00	3.00	
	Fx2	1	0.00	0.00	19.29	0.00	0.00	0.00	0.00			10.00	0.00	10.00	
	G2	1	0.00	1.56	1.74	89.54	0.00	0.00	0.00	0.11	1.56	0.00	0.24	0.24	
	H2	1	0.00	8.89	34.78	25.57	0.00	0.00	0.00	0.16	7.35	0.00	0.00	0.00	
	Hx2	1	0.00	8.68	8.22	105.69	0.01	0.00	0.00			67.00	0.00	67.00	
	E3	1	0.00	2.23	20.00	11.13	0.00	0.00	0.00			2.00	13.95	15.95	
	G3	1	0.00	10.73	6.96	154.25	0.40	0.00	0.00			0.00	47.70	47.70	
	Hx3	1	0.00	0.00	8.44	0.00	0.00	0.00	0.00			13.00	0.00	13.00	
	G4	1	0.00	2.53	8.70	29.11	0.00	0.00	0.00	0.09	1.73	0.00	0.00	0.00	
	Hx4	1	0.00	0.00	8.69	0.00	0.00	0.00	0.00			0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)

	B	1	4.64	0.23	19.86	3.63
	Bx	1	2.94	0.10	30.00	2.40
	C	1	56.12	2.03	27.62	14.99
	Cx	1	71.53	2.46	29.05	14.25
	D	1	1.40	0.05	29.27	6.15
	Dx	1	2.10	0.07	30.00	12.00
	Ex	1	53.59	1.83	29.23	14.16
	Gx	1	47.26	1.58	30.00	9.15
	I	1	0.00	0.00	0.00	0.00
	Ix	1	0.00	0.00	0.00	0.00
	J	1	2.88	0.10	29.07	2.48
	Jx	1	4.68	0.16	28.56	2.52
	K	1	7.02	0.24	28.95	3.73
	Kx	1	7.42	0.25	30.00	6.19
	A1	1	3.85	0.22	17.51	1.54
	Ax1	1	3.53	0.29	12.35	2.19
	E1	1	4.94	0.49	10.04	23.32
16:15-17:15	F1	1	47.30	10.46	4.52	79.62
	Fx1	1	50.50	1.68	30.00	13.23
	G1	1	3.92	0.18	21.82	3.30
	H1	1	95.60	12.95	7.38	97.54
	Hx1	1	19.40	0.68	28.48	5.91
	A2	1	38.48	1.66	23.24	11.62
	Ax2	1	47.10	1.61	29.27	12.30
	E2	1	36.53	4.62	7.91	29.58
	F2	1	41.50	4.54	9.13	39.41
	Fx2	1	50.80	1.69	30.00	13.31
	G2	1	3.58	0.87	4.11	8.76
	H2	1	74.00	5.18	14.29	50.38
	Hx2	1	19.61	0.75	26.05	6.53
	E3	1	73.37	2.72	26.98	15.34
	G3	1	22.16	3.02	7.34	19.61
	Hx3	1	24.91	0.83	30.00	5.83
	G4	1	5.00	1.08	4.65	38.71
	Hx4	1	25.64	0.85	30.00	6.00

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
	B	1	0.00	0.00	✓	0.94			1.00	0.00	1.41	1.41
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C	1	0.00	0.00	✓	1.73			1.00	0.00	2.71	2.71
	Cx	1	0.00	0.00	✓	0.08			1.00	0.00	1.11	1.11
	D	1	0.00	0.00	✓	0.01			1.00	0.00	0.02	0.02
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ex	1	0.00	0.00	✓	1.52			1.00	0.00	0.72	0.72
	Gx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	I	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	Ix	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	J	1	0.00	0.00	✓	0.00			1.00	0.00	0.04	0.04
	Jx	1	0.00	0.00	✓	0.01			1.00	0.00	0.11	0.11
	K	1	0.00	0.00	✓	0.01			1.00	0.00	0.12	0.12
	Kx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	A1	1	0.00	0.00	✓	0.08			1.00	0.00	1.10	1.10
	Ax1	1	0.00	0.00	✓	1.36	0.06	1.35	1.00	0.00	2.61	2.61
	E1	1	0.00	0.00	✓	1.45	0.01	1.25	1.00	0.00	5.12	5.12
16:15-17:15	F1	1	0.00	0.00	✓	18.73	3.62	15.05	1.00	0.00	132.97	132.97
	Fx1	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	G1	1	0.00	0.00	✓	1.47			1.00	0.00	0.78	0.78
	H1	1	0.00	0.00	✓	19.97	4.57	16.12	1.00	0.00	145.84	145.84
	Hx1	1	0.00	0.00	✓	0.03			1.00	0.00	0.49	0.49
	A2	1	0.00	0.00	✓	3.36	0.07	3.02	1.00	0.00	6.54	6.54
	Ax2	1	0.00	0.00	✓	0.04			1.00	0.00	0.55	0.55
	E2	1	0.00	0.00	✓	10.46	0.31	10.38	1.00	0.00	52.21	52.21
	F2	1	0.00	0.00	✓	10.25	0.22	8.29	1.00	0.00	48.66	48.66
	Fx2	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	G2	1	0.00	0.00	✓	1.56	0.11	1.56	1.00	0.00	11.26	11.26
	H2	1	0.00	0.00	✓	8.89	0.16	7.35	1.00	0.00	41.77	41.77
	Hx2	1	0.00	0.00	✓	8.68			1.00	0.00	2.77	2.77
	E3	1	0.00	0.00	✓	2.23			1.00	0.00	4.70	4.70
	G3	1	0.00	0.00	✓	10.73			1.00	0.00	36.24	36.24
	Hx3	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	G4	1	0.00	0.00	✓	2.53	0.09	1.73	1.00	0.00	13.84	13.84
	Hx4	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (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 overall PRC	Network within capacity
2	12/03/2019 15:44:49	12/03/2019 15:44:50	16:15	120	513.70	33.67	91.82	H1/1	1	3	H1/1	I/1	I/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
16:15-17:15	92	-100	12340	3602	9.82	478.16	35.54	513.70

Network Results: Flows and signals

Time	Calculated flow entering	Calculated flow out	Flow discrepancy	Adjusted flow	Degree of	DOS Threshold	Practical reserve	Actual green (s	Effective green (s

Segment	(PCU/hr)	(PCU/hr)	(PCU/hr)	warning	saturation (%)	exceeded	capacity (%)	(per cycle))	(per cycle))
16:15-17:15	12340	12340	-5		92	✓	-100	3602	3612

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
16:15-17:15	9.28	9.82	24.20	9.47	478.16	478.16	23.03	2574.52	267.32	35.54	35.54

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
16:15-17:15	154.25	0.00	868.00	75.29	943.29

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
16:15-17:15	953.29	65.48	14.56

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
16:15-17:15	0.00	0.00	✓	1.00	0.00	0.00	513.70	513.70

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		A	B	C	D
From	A	0.0	15.6	27.4	25.2
	B	19.0	0.0	17.9	15.6
	C	29.3	17.4	0.0	27.0
	D	21.6	8.6	20.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
4	B	D	3	15.63	3	15.63
5	B	C	158	17.88	158	17.88
7	C	D	14	26.99	14	26.99
8	C	B	81	17.39	81	17.39
10	D	C	15	20.40	15	20.40
11	D	B	6	8.55	6	8.55
14	A	C	449	27.41	449	27.41
15	A	B	60	15.56	60	15.56
20	A	D	4	25.16	4	25.16
21	B	A	71	19.04	71	19.04
22	C	A	393	29.28	393	29.28
23	D	A	7	21.61	7	21.61

Average Journey Time (s) for Local Matrix: 2

		To		
		1	2	3
From	1	0.0	0.0	8.7
	2	0.0	0.0	0.0
	3	6.3	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	3	144	8.66	144	8.66
2	3	1	234	6.25	234	6.25
3	2	1	0	0.00	0	0.00
4	2	3	0	0.00	0	0.00
5	3	2	0	0.00	0	0.00
6	1	2	0	0.00	0	0.00

Average Journey Time (s) for Local Matrix: 3

		To			
		1	2	3	4
From	1	0.0	0.0	87.2	111.7
	2	28.8	0.0	52.0	42.5
	3	71.6	88.8	0.0	0.0
	4	0.0	54.1	51.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	3	2	58	88.77	58	88.77
2	2	3	50	52.02	50	52.02
3	2	3	50	51.94	50	51.94
4	4	2	562	54.07	562	54.07
5	4	3	38	51.89	38	51.89
6	4	3	38	51.97	38	51.97
7	2	4	358	42.54	358	42.54
8	2	1	98	28.74	98	28.74
9	2	1	98	28.91	98	28.91
10	1	4	108	111.69	108	111.69
12	1	3	185	63.69	185	63.69
13	3	1	415	91.35	415	91.35
14	3	1	415	51.94	415	51.94
15	1	3	185	110.78	185	110.78
16	1	3	185	63.61	185	63.61
17	1	3	185	110.85	185	110.85

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			232	1147	120	3.79	21	327	3.63	1.23	9.87	0.94		100	100	0.00	1.41
Bx	1	(untitled)	3			147	Unrestricted	120	11.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			488	1497	120	30.71	34	165	14.99	1.19	7.03	1.73		100	100	0.00	2.71
Cx	1	(untitled)	9			622	1915	120	2.00	32	177	14.25	0.45	0.00	0.08		100	100	0.00	1.11
D	1	(untitled)	1			28	757	120	119.99	4	2280	6.15	0.15	0.51	0.01		100	100	0.00	0.02
Dx	1	(untitled)				21	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			466	1800	120	26.18	26	247	14.16	0.36	0.87	1.52		100	100	0.00	0.72
Gx	1	(untitled)				620	Unrestricted	120	19.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			0	0	120	120.00	0	-100	0.00	0.00	0.00	0.00		100	100	0.00	0.00
Ix	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			144	1915	120	12.00	8	1097	2.48	0.08	0.00	0.00		100	100	0.00	0.04
Jx	1	(untitled)	3			234	1985	120	0.00	12	663	2.52	0.12	0.00	0.01		100	100	0.00	0.11
K	1	(untitled)	4			234	1915	120	0.00	12	637	3.73	0.13	0.00	0.01		100	100	0.00	0.12
Kx	1	(untitled)				144	Unrestricted	120	13.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			513	1875	120	19.00	27	229	1.54	0.54	0.00	0.08		100	100	0.00	1.10
Ax1	1	(untitled)	2	1	A	471 <	1940	100	0.22	29	211	2.19	1.19	8.63	1.36 +	1.35	100	100	0.00	2.61
E1	1	(untitled)	5	2	C	76	1532	60	25.00	10	822	23.32	15.52	49.37	1.45	1.25	100	100	0.00	5.12
F1	1	(untitled)	5	2	B	473 <	1917	32	0.00	90	0	79.62	67.62	114.80	18.49 +	14.81	100	100	0.00	132.97
Fx1	1	(untitled)				458	Unrestricted	120	10.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	1	(untitled)	7			196	1094	120	29.00	18	402	3.30	0.90	3.28	1.47		100	100	0.00	0.78
H1	1	(untitled)	5	2	B	478	1893	32	0.00	92	-2	97.54	73.54	119.71	19.56	15.71	100	100	0.00	145.84
Hx1	1	(untitled)	3			415	1800	120	83.00	23	290	5.91	0.30	0.00	0.03		100	100	0.00	0.49
A2	1	(untitled)	2	1	A	513	1940	100	0.51	32	185	11.62	2.62	19.40	3.36	3.02	100	100	0.00	6.54
Ax2	1	(untitled)	10			471	1940	120	19.00	24	271	12.30	0.30	0.00	0.04		100	100	0.00	0.55
E2	1	(untitled)	5	2	C	562	2055	60	3.00	54	67	29.58	21.78	55.81	10.46	10.38	100	100	0.00	52.21
F2	1	(untitled)	5	2	A	415	2080	49	3.00	48	88	39.41	27.41	72.79	10.25	8.29	100	100	0.00	48.66
Fx2	1	(untitled)				458	Unrestricted	120	10.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	1	(untitled)	5	2	D	358	1915	60	0.24	37	144	8.76	7.56	13.05	1.56	1.56	100	100	0.00	11.26
H2	1	(untitled)	5	2	A	370	2080	49	0.00	43	111	50.38	26.38	70.55	8.89	7.35	100	100	0.00	41.77
Hx2	1	(untitled)	3			415 <	1800	120	67.00	23	290	6.53	0.86	26.25	8.68 +		100	100	0.00	2.77
E3	1	(untitled)	8			638	1915	120	15.95	38	139	15.34	1.54	10.21	2.23		100	100	0.00	4.70
G3	1	(untitled)	6			554 <	1800	120	47.70	51	76	19.61	14.81	55.73	10.73 +		100	100	0.00	36.24
Hx3	1	(untitled)				513	Unrestricted	120	13.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	1	(untitled)	5	2	E	100	580	60	0.00	34	165	38.71	32.71	74.81	2.53	1.73	100	100	0.00	13.84
Hx4	1	(untitled)				513	Unrestricted	120	0.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	953.29	65.48	14.56	24.20	9.47	478.16	35.54	0.00	513.70
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	953.29	65.48	14.56	24.20	9.47	478.16	35.54	0.00	513.70

- *< = 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: 2022 Junction 1, 3 & Dev DN.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 16:11:20

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2022 AM Peak DN
D1 - 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	Item with worst overall PRC	Network within capacity
1	12/03/2019 16:11:07	12/03/2019 16:11:08	07:00	120	421.22	27.36	80.88	H1/1	0	0	H1/1	I/1	I/1	✓

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2022 AM Peak DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM				07:00	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1587				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1796	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1596				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1915				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1915				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1915					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1784	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1913			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1897			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	89	6.00	✓	1587
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	32	6.00	✓	1796
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	80	6.00	✓	1596
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800

Gx	1	1	(untitled)										
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.24	✓	1915
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915
Kx	1	1	(untitled)											
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	35	6.00	✓	1784
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	14	15.01	✓	1913
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	21	13.82	✓	1897
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1587		100
		2	Cx/1	1500	1587		100
		3	Ax1/1	1400	1587		100
C	1	1	Dx/1	1800	1796	0	100
		2	Bx/1	900	1796	0	100
		3	Ax1/1	1800	1796	0	100
D	1	1	Bx/1	1000	1596		100
		2	Cx/1	1000	1596		100
		3	Ax1/1	1000	1596		100
I	1	1	Jx/1		1915		100
		2	Kx/1		1915		100
J	1	1	Ix/1		1915		100
		2	Kx/1		1915		100
A1	1	1	Dx/1	1800	1784	0	100
		2	Cx/1	1800	1784	0	100
		3	Bx/1	1800	1784	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0

		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
D	1	1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
I	1	1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
		2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
G4	1	1	Fx1/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

		To			
		1	2	3	4
From	1	0	0	5	5
	2	0	0	5	5
	3	6	7	0	0
	4	5	6	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	41	100	1	7
	2	✓	2	B	41	61	20	1	20
2	1	✓	1	A	16	17	1	1	1
	2	✓	2	A,B	17	72	55	1	7
	3	✓	3	C,D,E	77	10	53	1	7
	4	✓	4	D,E	10	11	1	1	1

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			70	1266	120	0.00	6	1528	2.82	0.42	5.79	0.16		100	100	0.00	0.17
Bx	1	(untitled)	3			394	Unrestricted	120	1.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			702	1273	120	10.74	56	61	20.30	6.50	19.42	12.18		100	100	0.00	19.71
Cx	1	(untitled)	9			390	1915	120	19.00	20	342	14.04	0.24	0.00	0.03		100	100	0.00	0.37
D	1	(untitled)	1			5	745	120	120.00	1	13307	6.02	0.02	0.00	0.00		100	100	0.00	0.00
Dx	1	(untitled)				25	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			714	1800	120	9.00	40	127	14.46	0.66	0.00	0.13		100	100	0.00	1.85
Gx	1	(untitled)				361	Unrestricted	120	47.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			0	0	120	120.00	0	-100	0.00	0.00	0.00	0.00		100	100	0.00	0.00
Ix	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			394	1915	120	0.00	21	337	2.64	0.24	0.00	0.03		100	100	0.00	0.38
Jx	1	(untitled)	3			64	1985	120	0.00	3	2691	2.43	0.03	0.00	0.00		100	100	0.00	0.01
K	1	(untitled)	4			64	1915	120	0.00	3	2593	3.63	0.03	0.00	0.00		100	100	0.00	0.01
Kx	1	(untitled)				394	Unrestricted	120	0.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			515 <	1779	120	19.00	29	211	1.62	0.62	0.59	1.39 +		100	100	0.00	1.30

Ax1	**1**	(untitled)	2	1	A	483 <	1940	100	6.14	30	204	2.18	1.18	7.96	1.37 +	1.28	100	100	0.00	2.64
E1	**1**	(untitled)	5	2	C	67	1532	53	16.00	10	826	27.04	19.24	55.23	1.45	1.23	100	100	0.00	5.55
F1	**1**	(untitled)	5	2	B	223	1913	55	0.00	25	260	32.00	20.00	59.44	4.50	4.01	100	100	0.00	19.25
Fx1	**1**	(untitled)				755	Unrestricted	120	0.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	**1**	(untitled)	7			50	1307	120	84.00	4	2252	2.46	0.06	0.27	0.00		100	100	0.00	0.01
H1	**1**	(untitled)	5	2	B	716	1897	55	0.00	81	11	59.77	35.77	90.26	21.95	14.39	100	100	0.00	109.13
Hx1	**1**	(untitled)	3			191	1800	120	62.00	11	748	5.73	0.12	0.00	0.01		100	100	0.00	0.09
A2	**1**	(untitled)	2	1	A	515	1940	100	0.55	32	184	11.63	2.63	19.41	3.37	3.03	100	100	0.00	6.59
Ax2	**1**	(untitled)	10			483	1940	120	25.00	25	261	12.31	0.31	0.00	0.04		100	100	0.00	0.59
E2	**1**	(untitled)	5	2	C	329	2055	53	7.00	36	153	30.24	22.44	56.87	6.24	6.18	100	100	0.00	31.47
F2	**1**	(untitled)	5	2	A	191	2080	56	0.00	19	366	30.66	18.66	56.76	3.68	3.37	100	100	0.00	15.41
Fx2	**1**	(untitled)				755	Unrestricted	120	0.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	564 <	1915	54	0.36	65	39	9.73	8.53	10.81	2.04 +	2.04	100	100	0.00	19.74
H2	**1**	(untitled)	5	2	A	566	2080	56	0.00	57	57	49.16	25.16	72.27	13.90	10.29	100	100	0.00	61.29
Hx2	**1**	(untitled)	3			191	1800	120	61.00	11	748	5.81	0.14	1.03	1.51		100	100	0.00	0.13
E3	**1**	(untitled)	8			396	1915	120	19.00	21	335	14.04	0.24	0.00	0.03		100	100	0.00	0.38
G3	**1**	(untitled)	6			614 <	1800	120	59.18	67	34	30.36	25.56	75.28	15.87 +		100	100	0.00	67.71
Hx3	**1**	(untitled)				216	Unrestricted	120	30.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	310 <	942	54	0.00	72	25	49.98	43.98	94.77	9.93 +	6.49	100	100	0.00	57.46
Hx4	**1**	(untitled)				216	Unrestricted	120	30.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	994.94	60.55	16.43	21.95	5.40	388.45	32.77	0.00	421.22
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	994.94	60.55	16.43	21.95	5.40	388.45	32.77	0.00	421.22

- *< = 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: 2022 Junction 1, 3 & Dev DS.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 16:13:24

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2022 AM Peak DS
D1 - 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	Item with worst overall PRC	Network within capacity
1	12/03/2019 16:13:16	12/03/2019 16:13:17	07:00	120	462.85	30.12	82.61	H1/1	0	0	H1/1	G3/1	H1/1	✓

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2022 AM Peak DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM				07:00	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1565				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1776	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1596				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1532				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1853				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1790					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1764	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1913			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1891			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	96	6.00	✓	1565
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	37	6.00	✓	1776
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	80	6.00	✓	1596
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800
Gx	1	1	(untitled)											
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	14	6.24	✓	1853
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	28	6.00	✓	1790

Kx	1	1	(untitled)										
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	40	6.00	✓	1764
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	14	15.01	✓	1913
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	24	13.82	✓	1891
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1565		100
		2	Cx/1	1500	1565		100
		3	Ax1/1	1400	1565		100
C	1	1	Dx/1	1800	1776	0	100
		2	Bx/1	900	1776	0	100
		3	Ax1/1	1800	1776	0	100
D	1	1	Bx/1	1000	1596		100
		2	Cx/1	1000	1596		100
		3	Ax1/1	1000	1596		100
I	1	1	Jx/1		1532		100
		2	Kx/1		1532		100
J	1	1	Ix/1		1853		100
		2	Kx/1		1853		100
A1	1	1	Dx/1	1800	1764	0	100
		2	Cx/1	1800	1764	0	100
		3	Bx/1	1800	1764	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0

				opposing flow									
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
		1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
D	1	2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
I	1	1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
		2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
G4	1	1	Fx1/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

		To			
		1	2	3	4
From	1	0	0	5	5
	2	0	0	5	5
	3	6	7	0	0
	4	5	6	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	60	40	100	1	7
	2	✓	2	B	40	60	20	1	20
2	1	✓	1	A	16	17	1	1	1
	2	✓	2	A,B	17	73	56	1	7
	3	✓	3	C,D,E	78	10	52	1	7
	4	✓	4	D,E	10	11	1	1	1

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			109	1084	120	6.94	11	725	3.80	1.40	12.86	0.52		100	100	0.00	0.78
Bx	1	(untitled)	3			480	Unrestricted	120	7.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			752	1206	120	14.58	68	33	24.37	10.57	29.29	14.20		100	100	0.00	34.11
Cx	1	(untitled)	9			404	1915	120	7.00	21	327	14.05	0.25	0.00	0.03		100	100	0.00	0.40
D	1	(untitled)	1			5	725	120	120.00	1	12345	6.08	0.08	1.82	0.00		100	100	0.00	0.00
Dx	1	(untitled)				21	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			765	1800	120	9.00	43	112	14.54	0.74	0.00	0.16		100	100	0.00	2.23
Gx	1	(untitled)				376	Unrestricted	120	48.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			81	971	120	0.00	8	979	1.97	0.17	0.00	0.00		100	100	0.00	0.05
Ix	1	(untitled)				92	Unrestricted	120	19.00	0	Unrestricted	1.80	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			460	1816	120	6.00	25	255	2.74	0.34	0.00	0.04		100	100	0.00	0.61
Jx	1	(untitled)	3			109	1985	120	0.00	5	1539	2.45	0.05	0.00	0.00		100	100	0.00	0.02
K	1	(untitled)	4			93	1790	120	0.00	5	1632	3.66	0.06	0.00	0.00		100	100	0.00	0.02
Kx	1	(untitled)				433	Unrestricted	120	2.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			551 <	1760	120	19.00	31	187	1.71	0.71	0.74	1.41 +		100	100	0.00	1.58
Ax1	1	(untitled)	2	1	A	512 <	1940	100	4.14	31	187	2.60	1.60	8.06	1.38 +	1.38	100	100	0.00	3.64
E1	1	(untitled)	5	2	C	67	1532	52	14.00	10	809	27.58	19.78	54.70	1.45	1.22	100	100	0.00	5.69
F1	1	(untitled)	5	2	B	223	1913	56	0.00	25	267	31.37	19.37	58.51	4.44	3.94	100	100	0.00	18.67
Fx1	1	(untitled)				747	Unrestricted	120	0.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	1	(untitled)	7			50	1306	120	81.00	4	2251	2.46	0.06	0.21	0.00		100	100	0.00	0.01
H1	1	(untitled)	5	2	B	742	1891	56	0.00	83	9	60.42	36.42	91.66	23.13	14.88	100	100	0.00	115.11
Hx1	1	(untitled)	3			191	1800	120	61.00	11	748	5.73	0.12	0.00	0.01		100	100	0.00	0.09
A2	1	(untitled)	2	1	A	551	1940	100	0.69	34	165	11.75	2.75	19.65	3.62	3.28	100	100	0.00	7.34
Ax2	1	(untitled)	10			512	1940	120	23.00	26	241	12.33	0.33	0.00	0.05		100	100	0.00	0.67

E2	**1**	(untitled)	5	2	C	344	2055	52	4.00	38	137	31.03	23.23	56.64	6.49	6.43	100	100	0.00	33.96
F2	**1**	(untitled)	5	2	A	191	2080	57	0.00	19	374	30.06	18.06	55.85	3.63	3.31	100	100	0.00	14.95
Fx2	**1**	(untitled)				747	Unrestricted	120	0.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	585 <	1915	53	0.36	68	32	10.39	9.19	11.14	2.18 +	2.18	100	100	0.00	22.02
H2	**1**	(untitled)	5	2	A	562	2080	57	0.00	56	61	48.21	24.21	70.64	13.47	10.03	100	100	0.00	58.64
Hx2	**1**	(untitled)	3			191	1800	120	60.00	11	748	5.80	0.13	0.98	1.08		100	100	0.00	0.12
E3	**1**	(untitled)	8			411	1915	120	7.00	21	319	14.06	0.26	0.00	0.03		100	100	0.00	0.42
G3	**1**	(untitled)	6			635 <	1800	120	60.29	71	27	32.58	27.78	78.90	17.26 +		100	100	0.00	75.87
Hx3	**1**	(untitled)				216	Unrestricted	120	27.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	302 <	864	53	0.00	78	16	58.03	52.03	102.12	10.44 +	6.83	100	100	0.00	65.85
Hx4	**1**	(untitled)				216	Unrestricted	120	27.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	1031.17	64.52	15.98	23.16	6.96	427.72	35.13	0.00	462.85
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	1031.17	64.52	15.98	23.16	6.96	427.72	35.13	0.00	462.85

- *< = 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: 2022 Junction 1, 3 & Dev DN.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 16:12:26

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - 2022 PM Peak DN
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 overall PRC	Network within capacity
2	12/03/2019 16:12:21	12/03/2019 16:12:22	16:15	120	392.50	25.29	63.07	E2/1	0	0	E2/1	I/1	I/1	✓

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2022 PM Peak DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				16:15	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1555				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1852	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1599				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1915				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1915				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1915					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1883	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1917			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1893			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	99	6.00	✓	1555
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	19	6.00	✓	1852
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	79	6.00	✓	1599
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800

Gx	1	1	(untitled)										
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.24	✓	1915
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915
Kx	1	1	(untitled)											
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	12	6.00	✓	1883
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	12	15.01	✓	1917
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	23	13.82	✓	1893
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1555		100
		2	Cx/1	1500	1555		100
		3	Ax1/1	1400	1555		100
C	1	1	Dx/1	1800	1852	0	100
		2	Bx/1	900	1852	0	100
		3	Ax1/1	1800	1852	0	100
D	1	1	Bx/1	1000	1599		100
		2	Cx/1	1000	1599		100
		3	Ax1/1	1000	1599		100
I	1	1	Jx/1		1915		100
		2	Kx/1		1915		100
J	1	1	Ix/1		1915		100
		2	Kx/1		1915		100
A1	1	1	Dx/1	1800	1883	0	100
		2	Cx/1	1800	1883	0	100
		3	Bx/1	1800	1883	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0

		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
D	1	1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
I	1	1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
		2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
G4	1	1	Fx1/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	0	5
	2	0	0	5
	3	6	7	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	89	69	100	1	7
	2	✓	2	B	69	89	20	1	20
2	1	✓	1	A	30	31	1	1	1
	2	✓	2	A,B	31	85	54	1	7
	3	✓	3	C,D,E	90	24	54	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			245	1123	120	9.90	24	268	4.90	2.50	17.52	1.56		100	100	0.00	2.96
Bx	1	(untitled)	3			155	Unrestricted	120	11.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			515	1494	120	20.89	38	136	15.40	1.60	7.61	1.78		100	100	0.00	3.75
Cx	1	(untitled)	9			659	1915	120	9.00	34	162	14.29	0.49	0.00	0.09		100	100	0.00	1.28
D	1	(untitled)	1			29	740	120	118.98	4	1992	6.44	0.44	5.38	0.07		100	100	0.00	0.07
Dx	1	(untitled)				22	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			492	1800	120	10.18	27	229	14.19	0.39	0.86	1.53		100	100	0.00	0.81
Gx	1	(untitled)				656	Unrestricted	120	4.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			0	0	120	120.00	0	-100	0.00	0.00	0.00	0.00		100	100	0.00	0.00
Ix	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			155	1915	120	10.00	8	1012	2.48	0.08	0.00	0.00		100	100	0.00	0.05
Jx	1	(untitled)	3			245	1985	120	0.00	12	629	2.53	0.13	0.00	0.01		100	100	0.00	0.12
K	1	(untitled)	4			245	1915	120	0.00	13	603	3.74	0.14	0.00	0.01		100	100	0.00	0.13
Kx	1	(untitled)				155	Unrestricted	120	10.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			544	1875	120	19.00	29	210	1.59	0.59	0.00	0.09		100	100	0.00	1.26
Ax1	1	(untitled)	2	1	A	497 <	1940	100	0.22	31	195	2.67	1.67	8.28	1.37 +	1.37	100	100	0.00	3.69
E1	1	(untitled)	5	2	C	82	1532	54	20.00	12	671	26.54	18.74	51.49	1.46	1.41	100	100	0.00	6.59

F1	**1**	(untitled)	5	2	B	502	1917	54	0.00	57	58	38.57	26.57	73.65	12.65	9.44	100	100	0.00	57.24
Fx1	**1**	(untitled)				486	Unrestricted	120	10.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	**1**	(untitled)	7			206	1087	120	35.00	19	375	3.30	0.90	3.10	1.47		100	100	0.00	0.81
H1	**1**	(untitled)	5	2	B	506	1893	54	0.00	58	54	50.92	26.92	74.41	12.77	9.54	100	100	0.00	58.44
Hx1	**1**	(untitled)	3			440	1800	120	61.00	24	268	5.93	0.32	0.00	0.04		100	100	0.00	0.56
A2	**1**	(untitled)	2	1	A	544	1940	100	0.58	34	169	11.72	2.72	19.61	3.57	3.24	100	100	0.00	7.16
Ax2	**1**	(untitled)	10			497	1940	120	19.00	26	251	12.32	0.32	0.00	0.04		100	100	0.00	0.63
E2	**1**	(untitled)	5	2	C	594	2055	54	7.00	63	43	33.73	25.93	53.92	10.68	10.68	100	100	0.00	64.77
F2	**1**	(untitled)	5	2	A	440	2080	55	2.00	45	99	35.18	23.18	67.16	10.09	8.01	100	100	0.00	43.94
Fx2	**1**	(untitled)				486	Unrestricted	120	10.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	378	1915	54	0.24	43	108	9.63	8.43	12.80	1.61	1.61	100	100	0.00	13.18
H2	**1**	(untitled)	5	2	A	392	2080	55	0.00	40	123	46.29	22.29	64.94	8.63	7.11	100	100	0.00	37.65
Hx2	**1**	(untitled)	3			440 <	1800	120	60.00	24	268	6.50	0.83	23.99	8.60 +		100	100	0.00	2.77
E3	**1**	(untitled)	8			676	1915	120	30.85	44	104	17.40	3.60	17.37	3.92		100	100	0.00	11.08
G3	**1**	(untitled)	6			584 <	1800	120	54.60	60	51	25.07	20.27	66.22	13.41 +		100	100	0.00	51.54
Hx3	**1**	(untitled)				543	Unrestricted	120	0.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	106	399	54	0.00	58	55	55.41	49.41	100.81	3.25	2.30	100	100	0.00	22.00
Hx4	**1**	(untitled)				543	Unrestricted	120	0.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	1009.29	58.97	17.12	21.69	3.60	359.17	33.33	0.00	392.50
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	1009.29	58.97	17.12	21.69	3.60	359.17	33.33	0.00	392.50

- *< = 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: 2022 Junction 1, 3 & Dev DS.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 16:14:02

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - 2022 PM Peak DS
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 overall PRC	Network within capacity
2	12/03/2019 16:13:53	12/03/2019 16:13:54	16:15	120	430.04	27.63	65.07	E2/1	0	0	E2/1	G3/1	E2/1	✓

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2022 PM Peak DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				16:15	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1555				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1830	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1606				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1532				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1823				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1868					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1870	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1917			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1889			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	99	6.00	✓	1555
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	24	6.00	✓	1830
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	77	6.00	✓	1606
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800

Gx	1	1	(untitled)										
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	21	6.24	✓	1823
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	10	6.00	✓	1868
Kx	1	1	(untitled)											
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	15	6.00	✓	1870
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	12	15.01	✓	1917
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	25	13.82	✓	1889
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1555		100
		2	Cx/1	1500	1555		100
		3	Ax1/1	1400	1555		100
C	1	1	Dx/1	1800	1830	0	100
		2	Bx/1	900	1830	0	100
		3	Ax1/1	1800	1830	0	100
D	1	1	Bx/1	1000	1606		100
		2	Cx/1	1000	1606		100
		3	Ax1/1	1000	1606		100
I	1	1	Jx/1		1532		100
		2	Kx/1		1532		100
J	1	1	Ix/1		1823		100
		2	Kx/1		1823		100
A1	1	1	Dx/1	1800	1870	0	100
		2	Cx/1	1800	1870	0	100
		3	Bx/1	1800	1870	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0

		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
D	1	1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
I	1	1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
		2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
G4	1	1	Fx1/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	0	5
	2	0	0	5
	3	6	7	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	3	103	100	1	7
	2	✓	2	B	103	3	20	1	20
2	1	✓	1	A	29	30	1	1	1
	2	✓	2	A,B	30	83	53	1	7
	3	✓	3	C,D,E	88	23	55	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			316	1075	120	5.86	31	186	4.88	2.48	16.39	1.95		100	100	0.00	3.74
Bx	1	(untitled)	3			202	Unrestricted	120	15.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			543	1409	120	17.30	41	118	20.17	6.37	40.88	9.18		100	100	0.00	16.42
Cx	1	(untitled)	9			690	1915	120	5.00	36	150	14.33	0.53	0.00	0.10		100	100	0.00	1.44
D	1	(untitled)	1			30	720	120	118.97	4	1962	6.23	0.23	2.00	0.03		100	100	0.00	0.03
Dx	1	(untitled)				23	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			519	1800	120	10.18	29	212	14.22	0.42	0.85	1.54		100	100	0.00	0.91
Gx	1	(untitled)				686	Unrestricted	120	6.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			106	1043	120	0.00	10	785	2.00	0.20	0.00	0.01		100	100	0.00	0.08
Ix	1	(untitled)				71	Unrestricted	120	48.00	0	Unrestricted	1.80	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			196	1685	120	13.00	12	674	2.54	0.14	0.00	0.01		100	100	0.00	0.11
Jx	1	(untitled)	3			338	1985	120	0.00	17	429	2.59	0.19	0.00	0.02		100	100	0.00	0.25
K	1	(untitled)	4			297	1868	120	0.00	16	466	3.78	0.18	0.00	0.02		100	100	0.00	0.21
Kx	1	(untitled)				190	Unrestricted	120	3.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			562	1863	120	19.00	30	198	1.63	0.63	0.00	0.10		100	100	0.00	1.39
Ax1	1	(untitled)	2	1	A	536 <	1940	100	0.22	33	174	2.34	1.34	7.75	1.38 +	1.38	100	100	0.00	3.26
E1	1	(untitled)	5	2	C	82	1532	55	19.00	11	685	25.67	17.87	49.04	1.46	1.34	100	100	0.00	6.28

F1	**1**	(untitled)	5	2	B	502	1917	53	0.00	58	55	39.48	27.48	75.10	12.81	9.61	100	100	0.00	59.14
Fx1	**1**	(untitled)				482	Unrestricted	120	9.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	**1**	(untitled)	7			206	1087	120	34.00	19	375	3.25	0.85	2.74	1.47		100	100	0.00	0.76
H1	**1**	(untitled)	5	2	B	519	1889	53	0.00	61	47	52.32	28.32	76.50	13.45	9.99	100	100	0.00	62.96
Hx1	**1**	(untitled)	3			440	1800	120	62.00	24	268	5.93	0.32	0.00	0.04		100	100	0.00	0.56
A2	**1**	(untitled)	2	1	A	562	1940	100	0.58	35	160	11.78	2.78	19.69	3.70	3.36	100	100	0.00	7.54
Ax2	**1**	(untitled)	10			536	1940	120	19.00	28	226	12.35	0.35	0.00	0.05		100	100	0.00	0.75
E2	**1**	(untitled)	5	2	C	624	2055	55	0.00	65	38	32.94	25.14	51.64	10.75	10.75	100	100	0.00	65.92
F2	**1**	(untitled)	5	2	A	440	2080	54	3.00	46	95	35.95	23.95	68.35	10.22	8.14	100	100	0.00	45.33
Fx2	**1**	(untitled)				482	Unrestricted	120	9.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	390	1915	55	0.24	44	105	9.34	8.14	12.46	1.62	1.62	100	100	0.00	13.13
H2	**1**	(untitled)	5	2	A	390	2080	54	0.00	41	120	46.97	22.97	65.84	8.70	7.18	100	100	0.00	38.56
Hx2	**1**	(untitled)	3			440 <	1800	120	61.00	24	268	6.52	0.85	24.87	8.70 +		100	100	0.00	2.85
E3	**1**	(untitled)	8			706	1915	120	34.01	49	85	20.28	6.48	32.09	7.86		100	100	0.00	20.88
G3	**1**	(untitled)	6			596 <	1800	120	53.74	60	50	24.88	20.08	66.27	13.69 +		100	100	0.00	52.17
Hx3	**1**	(untitled)				543	Unrestricted	120	0.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	102	367	55	0.00	60	51	65.68	59.68	105.23	3.63	2.24	100	100	0.00	25.36
Hx4	**1**	(untitled)				543	Unrestricted	120	0.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	1045.47	62.51	16.73	23.57	4.06	392.30	37.74	0.00	430.04
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	1045.47	62.51	16.73	23.57	4.06	392.30	37.74	0.00	430.04

- *< = 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: 2037 Junction 1, 3 & Dev DN.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 16:14:59

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2037 AM Peak DN
D1 - 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	Item with worst overall PRC	Network within capacity
1	12/03/2019 16:14:47	12/03/2019 16:14:47	07:00	120	650.96	42.70	92.45	H1/1	1	3	H1/1	I/1	I/1	

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2037 AM Peak DN		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM				07:00	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1568				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1792	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1586				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1915				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1915				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1915					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1784	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1913			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1897			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	95	6.00	✓	1568
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	33	6.00	✓	1792
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	83	6.00	✓	1586
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800
Gx	1	1	(untitled)											
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.24	✓	1915
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915

Kx	1	1	(untitled)										
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	35	6.00	✓	1784
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	14	15.01	✓	1913
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	21	13.82	✓	1897
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1568		100
		2	Cx/1	1500	1568		100
		3	Ax1/1	1400	1568		100
C	1	1	Dx/1	1800	1792	0	100
		2	Bx/1	900	1792	0	100
		3	Ax1/1	1800	1792	0	100
D	1	1	Bx/1	1000	1586		100
		2	Cx/1	1000	1586		100
		3	Ax1/1	1000	1586		100
I	1	1	Jx/1		1915		100
		2	Kx/1		1915		100
J	1	1	Ix/1		1915		100
		2	Kx/1		1915		100
A1	1	1	Dx/1	1800	1784	0	100
		2	Cx/1	1800	1784	0	100
		3	Bx/1	1800	1784	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0

				opposing flow									
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
		1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
D	1	2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
I	1	1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
		2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
G4	1	1	Fx1/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

		To			
		1	2	3	4
From	1	0	0	5	5
	2	0	0	5	5
	3	6	7	0	0
	4	5	6	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	73	53	100	1	7
	2	✓	2	B	53	73	20	1	20
2	1	✓	1	A	12	13	1	1	1
	2	✓	2	A,B	13	69	56	1	7
	3	✓	3	C,D,E	74	118	44	1	7
	4	✓	4	D,E	118	7	9	1	1

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			77	1202	120	1.96	7	1276	3.14	0.74	8.65	0.26		100	100	0.00	0.31
Bx	1	(untitled)	3			458	Unrestricted	120	3.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			814	1251	120	8.68	68	32	24.23	10.43	26.02	15.75		100	100	0.00	36.13
Cx	1	(untitled)	9			458	1915	120	2.00	24	276	14.10	0.30	0.00	0.04		100	100	0.00	0.53
D	1	(untitled)	1			6	699	120	120.00	1	10386	6.03	0.03	0.00	0.00		100	100	0.00	0.00
Dx	1	(untitled)				25	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			826	1800	120	9.00	46	96	14.65	0.85	0.00	0.19		100	100	0.00	2.76
Gx	1	(untitled)				422	Unrestricted	120	52.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			0	0	120	120.00	0	-100	0.00	0.00	0.00	0.00		100	100	0.00	0.00
Ix	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			458	1915	120	3.00	24	276	2.70	0.30	0.00	0.04		100	100	0.00	0.53
Jx	1	(untitled)	3			77	1985	120	0.00	4	2220	2.44	0.04	0.00	0.00		100	100	0.00	0.01
K	1	(untitled)	4			77	1915	120	0.00	4	2138	3.64	0.04	0.00	0.00		100	100	0.00	0.01
Kx	1	(untitled)				458	Unrestricted	120	1.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			603 <	1777	120	19.00	34	165	1.78	0.78	0.72	1.43 +		100	100	0.00	1.91
Ax1	1	(untitled)	2	1	A	559 <	1940	100	4.14	34	163	2.39	1.39	7.45	1.39 +	1.39	100	100	0.00	3.50
E1	1	(untitled)	5	2	C	79	1532	44	19.00	14	554	33.02	25.22	64.58	1.70	1.68	100	100	0.00	8.50
F1	1	(untitled)	5	2	B	266	1913	56	0.00	29	207	32.03	20.03	60.15	5.45	4.72	100	100	0.00	23.02
Fx1	1	(untitled)				878	Unrestricted	120	1.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	1	(untitled)	7			60	1271	120	54.00	5	1806	2.48	0.08	0.15	0.00		100	100	0.00	0.02
H1	1	(untitled)	5	2	B	833	1897	56	0.00	92	-3	74.39	50.39	107.79	30.75	19.42	100	100	0.00	176.84
Hx1	1	(untitled)	3			230	1800	120	61.00	13	604	5.75	0.15	0.00	0.01		100	100	0.00	0.13
A2	1	(untitled)	2	1	A	603	1940	100	0.72	37	142	11.93	2.93	19.88	4.47	3.62	100	100	0.00	8.47
Ax2	1	(untitled)	10			559	1940	120	23.00	29	212	12.38	0.38	0.00	0.06		100	100	0.00	0.83

E2	**1**	(untitled)	5	2	C	386	2055	44	14.00	50	80	39.62	31.82	75.65	9.74	8.87	100	100	0.00	52.10
F2	**1**	(untitled)	5	2	A	230	2080	57	0.00	23	293	30.55	18.55	56.92	4.44	4.00	100	100	0.00	18.47
Fx2	**1**	(untitled)				878	Unrestricted	120	1.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	653 <	1915	53	0.36	76	18	12.07	10.87	12.11	2.65 +	2.65	100	100	0.00	28.99
H2	**1**	(untitled)	5	2	A	660	2080	57	0.00	66	37	50.86	26.86	76.41	17.12	11.99	100	100	0.00	76.25
Hx2	**1**	(untitled)	3			230	1800	120	60.00	13	604	5.87	0.20	2.81	2.15		100	100	0.00	0.26
E3	**1**	(untitled)	8			465	1915	120	2.00	24	271	14.10	0.30	0.00	0.04		100	100	0.00	0.55
G3	**1**	(untitled)	6			713 <	1800	120	61.21	81	11	38.52	33.72	88.45	21.66 +		100	100	0.00	102.75
Hx3	**1**	(untitled)				260	Unrestricted	120	19.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	356 <	881	53	0.00	90	0	79.12	73.12	121.42	14.75 +	9.81	100	100	0.00	108.09
Hx4	**1**	(untitled)				260	Unrestricted	120	19.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	1160.67	81.42	14.26	28.95	13.75	606.32	44.64	0.00	650.96
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	1160.67	81.42	14.26	28.95	13.75	606.32	44.64	0.00	650.96

- *< = 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: 2037 Junction 1, 3 & Dev DS.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 16:17:30

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
1, 1
Diagram produced using TRANSYT 15.5.2.7994

A1 - 2037 AM Peak DS
D1 - 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	Item with worst overall PRC	Network within capacity
1	12/03/2019 16:17:22	12/03/2019 16:17:23	07:00	120	752.70	49.58	95.63	H1/1	2	6	H1/1	G3/1	H1/1	

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2037 AM Peak DS		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
AM				07:00	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1561				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1776	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1586				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1532				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1857				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1802					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1768	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1913			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1891			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	97	6.00	✓	1561
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	37	6.00	✓	1776
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	83	6.00	✓	1586
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800
Gx	1	1	(untitled)											
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	13	6.24	✓	1857
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	25	6.00	✓	1802

Kx	1	1	(untitled)										
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	39	6.00	✓	1768
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	14	15.01	✓	1913
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	24	13.82	✓	1891
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1561		100
		2	Cx/1	1500	1561		100
		3	Ax1/1	1400	1561		100
C	1	1	Dx/1	1800	1776	0	100
		2	Bx/1	900	1776	0	100
		3	Ax1/1	1800	1776	0	100
D	1	1	Bx/1	1000	1586		100
		2	Cx/1	1000	1586		100
		3	Ax1/1	1000	1586		100
I	1	1	Jx/1		1532		100
		2	Kx/1		1532		100
J	1	1	Ix/1		1857		100
		2	Kx/1		1857		100
A1	1	1	Dx/1	1800	1768	0	100
		2	Cx/1	1800	1768	0	100
		3	Bx/1	1800	1768	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0

				opposing flow									
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
		1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
D	1			Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
I	1	1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
		2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
G4	1	1	Fx1/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

	To		
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

	To				
		1	2	3	4
From	1	0	0	5	5
	2	0	0	5	5
	3	6	7	0	0
	4	5	6	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	73	53	100	1	7
	2	✓	2	B	53	73	20	1	20
2	1	✓	1	A	13	14	1	1	1
	2	✓	2	A,B	14	70	56	1	7
	3	✓	3	C,D,E	75	119	44	1	7
	4	✓	4	D,E	119	8	9	1	1

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			120	1019	120	5.91	13	610	4.00	1.60	13.60	0.61		100	100	0.00	0.96
Bx	1	(untitled)	3			545	Unrestricted	120	6.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			864	1191	120	10.82	77	16	29.28	15.48	35.06	18.10		100	100	0.00	56.55
Cx	1	(untitled)	9			473	1915	120	5.00	25	264	14.11	0.31	0.00	0.04		100	100	0.00	0.58
D	1	(untitled)	1			6	678	120	120.00	1	9818	6.05	0.05	0.83	0.00		100	100	0.00	0.00
Dx	1	(untitled)				25	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			877	1800	120	9.00	49	85	14.75	0.95	0.00	0.23		100	100	0.00	3.28
Gx	1	(untitled)				436	Unrestricted	120	53.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			81	899	120	0.00	9	899	2.00	0.20	0.00	0.00		100	100	0.00	0.06
Ix	1	(untitled)				92	Unrestricted	120	20.00	0	Unrestricted	1.80	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			524	1823	120	5.00	29	213	2.80	0.40	0.00	0.06		100	100	0.00	0.82
Jx	1	(untitled)	3			120	1985	120	0.00	6	1389	2.46	0.06	0.00	0.00		100	100	0.00	0.03
K	1	(untitled)	4			104	1802	120	0.00	6	1459	3.66	0.06	0.00	0.00		100	100	0.00	0.03
Kx	1	(untitled)				497	Unrestricted	120	0.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			640 <	1762	120	19.00	36	148	1.88	0.88	0.85	1.46 +		100	100	0.00	2.29
Ax1	1	(untitled)	2	1	A	587 <	1940	100	4.14	36	150	2.48	1.48	7.18	1.41 +	1.41	100	100	0.00	3.86
E1	1	(untitled)	5	2	C	79	1532	44	19.00	14	554	33.86	26.06	65.64	1.73	1.71	100	100	0.00	8.77
F1	1	(untitled)	5	2	B	266	1913	56	0.00	29	207	32.03	20.03	60.15	5.45	4.72	100	100	0.00	23.02
Fx1	1	(untitled)				871	Unrestricted	120	2.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	1	(untitled)	7			60	1271	120	55.00	5	1806	2.47	0.07	0.13	0.00		100	100	0.00	0.02
H1	1	(untitled)	5	2	B	859 <	1891	56	0.00	96	-6	85.13	61.13	117.75	34.80 +	22.39	100	100	0.00	219.82
Hx1	1	(untitled)	3			230	1800	120	61.00	13	604	5.75	0.15	0.00	0.01		100	100	0.00	0.13
A2	1	(untitled)	2	1	A	640	1940	100	0.86	40	128	12.08	3.08	20.84	4.71	3.86	100	100	0.00	9.44
Ax2	1	(untitled)	10			587	1940	120	23.00	30	197	12.40	0.40	0.00	0.07		100	100	0.00	0.93

E2	**1**	(untitled)	5	2	C	400	2055	44	6.00	52	73	41.02	33.22	76.87	10.25	9.42	100	100	0.00	56.28
F2	**1**	(untitled)	5	2	A	230	2080	57	0.00	23	293	30.55	18.55	56.92	4.44	4.00	100	100	0.00	18.47
Fx2	**1**	(untitled)				871	Unrestricted	120	2.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	674 <	1915	53	0.36	79	14	12.91	11.71	12.69	2.87 +	2.87	100	100	0.00	32.21
H2	**1**	(untitled)	5	2	A	656	2080	57	0.00	65	38	50.74	26.74	76.24	17.01	11.91	100	100	0.00	75.45
Hx2	**1**	(untitled)	3			230	1800	120	60.00	13	604	5.87	0.20	2.81	2.15		100	100	0.00	0.26
E3	**1**	(untitled)	8			479	1915	120	5.00	25	260	14.11	0.31	0.00	0.04		100	100	0.00	0.59
G3	**1**	(untitled)	6			734 <	1800	120	61.90	84	7	41.43	36.63	92.18	23.36 +		100	100	0.00	114.54
Hx3	**1**	(untitled)				260	Unrestricted	120	17.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	350 <	838	53	0.00	93	-3	91.90	85.90	130.40	15.72 +	10.76	100	100	0.00	124.31
Hx4	**1**	(untitled)				260	Unrestricted	120	17.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	1197.46	89.53	13.37	30.50	19.08	704.08	48.63	0.00	752.70
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	1197.46	89.53	13.37	30.50	19.08	704.08	48.63	0.00	752.70

- *< = 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: 2037 Junction 1, 3 & Dev DN.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 13/03/2019 08:25:55

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - 2037 PM Peak DN
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 overall PRC	Network within capacity
2	13/03/2019 08:24:52	13/03/2019 08:25:28	16:15	120	534.93	34.59	76.64	H1/1	0	0	H1/1	I/1	I/1	✓

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2037 PM Peak DN		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				16:15	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1555				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1852	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1599				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1915				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1915				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1915					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1879	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1917			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1895			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	99	6.00	✓	1555
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	19	6.00	✓	1852
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	79	6.00	✓	1599
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800

Gx	1	1	(untitled)										
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.24	✓	1915
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	6.00	✓	1915
Kx	1	1	(untitled)											
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	13	6.00	✓	1879
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	12	15.01	✓	1917
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	22	13.82	✓	1895
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1555		100
		2	Cx/1	1500	1555		100
		3	Ax1/1	1400	1555		100
C	1	1	Dx/1	1800	1852	0	100
		2	Bx/1	900	1852	0	100
		3	Ax1/1	1800	1852	0	100
D	1	1	Bx/1	1000	1599		100
		2	Cx/1	1000	1599		100
		3	Ax1/1	1000	1599		100
I	1	1	Jx/1		1915		100
		2	Kx/1		1915		100
J	1	1	Ix/1		1915		100
		2	Kx/1		1915		100
A1	1	1	Dx/1	1800	1879	0	100
		2	Cx/1	1800	1879	0	100
		3	Bx/1	1800	1879	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0

		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
D	1	1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
I	1	1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
		2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
G4	1	1	Fx1/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	0	5
	2	0	0	5
	3	6	7	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	97	77	100	1	7
	2	✓	2	B	77	97	20	1	20
2	1	✓	1	A	37	38	1	1	1
	2	✓	2	A,B	38	86	48	1	7
	3	✓	3	C,D,E	91	31	60	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			281	1044	120	10.75	31	192	5.97	3.57	21.77	2.29		100	100	0.00	4.73
Bx	1	(untitled)	3			180	Unrestricted	120	11.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			594	1478	120	21.66	45	101	16.05	2.25	11.16	1.88		100	100	0.00	6.11
Cx	1	(untitled)	9			767	1915	120	9.00	40	125	14.43	0.63	0.00	0.13		100	100	0.00	1.90
D	1	(untitled)	1			34	696	120	118.98	5	1544	6.52	0.52	5.60	0.08		100	100	0.00	0.09
Dx	1	(untitled)				26	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			568	1800	120	10.18	32	185	14.27	0.47	0.85	1.55		100	100	0.00	1.12
Gx	1	(untitled)				756	Unrestricted	120	4.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			0	0	120	120.00	0	-100	0.00	0.00	0.00	0.00		100	100	0.00	0.00
Ix	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			180	1915	120	10.00	9	858	2.50	0.10	0.00	0.00		100	100	0.00	0.07
Jx	1	(untitled)	3			281	1985	120	0.00	14	536	2.55	0.15	0.00	0.01		100	100	0.00	0.17
K	1	(untitled)	4			281	1915	120	0.00	15	513	3.76	0.16	0.00	0.01		100	100	0.00	0.18
Kx	1	(untitled)				180	Unrestricted	120	10.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			637	1870	120	19.00	34	164	1.75	0.75	0.00	0.13		100	100	0.00	1.87
Ax1	1	(untitled)	2	1	A	573 <	1940	100	0.22	35	156	2.63	1.63	7.33	1.40 +	1.40	100	100	0.00	4.11
E1	1	(untitled)	5	2	C	101	1532	60	22.00	13	594	23.30	15.50	44.71	1.51	1.51	100	100	0.00	6.74

F1	**1**	(untitled)	5	2	B	586 <	1917	48	0.00	75	20	48.98	36.98	88.74	17.70 +	12.65	100	100	0.00	91.99
Fx1	**1**	(untitled)				574	Unrestricted	120	7.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	**1**	(untitled)	7			236	1033	120	22.00	23	294	3.26	0.86	1.70	1.48		100	100	0.00	0.85
H1	**1**	(untitled)	5	2	B	593	1895	48	0.00	77	17	62.04	38.04	90.25	18.20	12.92	100	100	0.00	95.68
Hx1	**1**	(untitled)	3			515	1800	120	67.00	29	215	6.01	0.40	0.00	0.06		100	100	0.00	0.81
A2	**1**	(untitled)	2	1	A	637	1940	100	0.72	39	129	12.05	3.05	20.77	4.68	3.84	100	100	0.00	9.32
Ax2	**1**	(untitled)	10			573	1940	120	19.00	30	205	12.39	0.39	0.00	0.06		100	100	0.00	0.88
E2	**1**	(untitled)	5	2	C	685	2055	60	8.00	66	37	29.88	22.08	47.13	10.77	10.77	100	100	0.00	63.71
F2	**1**	(untitled)	5	2	A	515	2080	49	10.00	59	51	42.16	30.16	78.06	13.74	10.45	100	100	0.00	66.31
Fx2	**1**	(untitled)				574	Unrestricted	120	7.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	437	1915	60	0.24	45	100	8.15	6.95	11.21	1.63	1.63	100	100	0.00	12.60
H2	**1**	(untitled)	5	2	A	462	2080	49	0.00	53	69	52.61	28.61	74.99	11.72	9.29	100	100	0.00	56.48
Hx2	**1**	(untitled)	3			515 <	1800	120	66.00	29	215	7.03	1.36	37.13	12.26 +		100	100	0.00	5.15
E3	**1**	(untitled)	8			786	1915	120	33.79	52	72	19.06	5.26	24.71	6.53		100	100	0.00	18.75
G3	**1**	(untitled)	6			673 <	1800	120	49.84	64	41	23.96	19.16	66.12	15.33 +		100	100	0.00	56.45
Hx3	**1**	(untitled)				633	Unrestricted	120	0.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	122	350	60	0.00	69	31	62.40	56.40	112.46	4.00	2.71	100	100	0.00	28.86
Hx4	**1**	(untitled)				633	Unrestricted	120	0.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	1176.38	73.83	15.93	27.97	6.61	491.13	43.79	0.00	534.93
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	1176.38	73.83	15.93	27.97	6.61	491.13	43.79	0.00	534.93

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

TRANSYT 15

Version: 15.5.2.7994

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

Filename: 2037 Junction 1, 3 & Dev DS.t15
Path: C:\Users\shane.mcgivney\Desktop
Report generation date: 12/03/2019 16:18:00

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\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

(untitled)
Cycletime 0s / 120s , Timesteps 119 / 120
2, 2
Diagram produced using TRANSYT 15.5.2.7994

A2 - 2037 PM Peak DS
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 overall PRC	Network within capacity
2	12/03/2019 16:17:53	12/03/2019 16:17:54	16:15	120	579.71	37.58	82.85	G4/1	0	0	G4/1	G3/1	G4/1	✓

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2037 PM Peak DS		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
PM				16:15	

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		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

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

Tram parameters

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

Pedestrian parameters

Dispersion type
Default

Optimisation options

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

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

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

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
B	(untitled)		1
Bx	(untitled)		3
C	(untitled)		1
Cx	(untitled)		9
D	(untitled)		1
Dx	(untitled)		
Ex	(untitled)		9
Gx	(untitled)		
I	(untitled)		4
Ix	(untitled)		
J	(untitled)		4
Jx	(untitled)		3
K	(untitled)		4
Kx	(untitled)		
A1	(untitled)		1
Ax1	(untitled)		2
E1	(untitled)		5
F1	(untitled)		5
Fx1	(untitled)		
G1	(untitled)		7
H1	(untitled)		5
Hx1	(untitled)		3
A2	(untitled)		2
Ax2	(untitled)		10
E2	(untitled)		5
F2	(untitled)		5
Fx2	(untitled)		
G2	(untitled)		5
H2	(untitled)		5
Hx2	(untitled)		3
E3	(untitled)		8
G3	(untitled)		6
Hx3	(untitled)		
G4	(untitled)		5
Hx4	(untitled)		

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
B	1	(untitled)			20.00	✓	Sum of lanes	1555				✓	Normal	
Bx	1	(untitled)			20.00								Normal	
C	1	(untitled)			115.00	✓	Sum of lanes	1835	✓	1800		✓	Normal	
Cx	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1606				✓	Normal	
Dx	1	(untitled)			100.00								Normal	
Ex	1	(untitled)			115.00	✓	Sum of lanes	1800	✓	1800			Normal	
Gx	1	(untitled)		✓	76.23								Normal	
I	1	(untitled)			15.00	✓	Sum of lanes	1532				✓	Normal	
Ix	1	(untitled)			15.00								Normal	
J	1	(untitled)			20.00	✓	Sum of lanes	1831				✓	Normal	
Jx	1	(untitled)			20.00	✓	Sum of lanes	1985					Normal	
K	1	(untitled)			30.00	✓	Sum of lanes	1873					Normal	
Kx	1	(untitled)		✓	51.55								Normal	
A1	1	(untitled)			7.50	✓	Sum of lanes	1870	✓	1800		✓	Normal	
Ax1	1	(untitled)			7.50	✓	Sum of lanes	1940	✓	1800	✓		Normal	
E1	1	(untitled)			65.00	✓	Sum of lanes	1532	✓	1800	✓		Normal	
F1	1	(untitled)			100.00	✓	Sum of lanes	1917			✓		Normal	
Fx1	1	(untitled)		✓	110.26								Normal	
G1	1	(untitled)			20.00	✓	Sum of lanes	1800	✓	1800		✓	Normal	
H1	1	(untitled)			200.00	✓	Sum of lanes	1891			✓		Normal	
Hx1	1	(untitled)		✓	46.74	✓	Sum of lanes	1800					Normal	
A2	1	(untitled)			75.00	✓	Sum of lanes	1940	✓	1800	✓		Normal	
Ax2	1	(untitled)			100.00	✓	Sum of lanes	1940	✓	1800			Normal	
E2	1	(untitled)			65.00	✓	Sum of lanes	2055	✓	1800	✓		Normal	
F2	1	(untitled)			100.00	✓	Sum of lanes	2080			✓		Normal	
Fx2	1	(untitled)		✓	110.92								Normal	
G2	1	(untitled)			10.00	✓	Sum of lanes	1915	✓	1800	✓		Normal	
H2	1	(untitled)			200.00	✓	Sum of lanes	2080			✓		Normal	
Hx2	1	(untitled)		✓	47.25	✓	Sum of lanes	1800					Normal	
E3	1	(untitled)			115.00	✓	Sum of lanes	1915	✓	1800			Normal	
G3	1	(untitled)			40.00	✓	Sum of lanes	1800					Normal	
Hx3	1	(untitled)		✓	48.56								Normal	
G4	1	(untitled)			50.00	✓	Sum of lanes	1937			✓	✓	Normal	
Hx4	1	(untitled)		✓	49.99								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)
B	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	99	6.00	✓	1555
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	23	6.00	✓	1835
Cx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
D	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	77	6.00	✓	1606
Dx	1	1	(untitled)											
Ex	1	1	(untitled)											1800
Gx	1	1	(untitled)											
I	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
Ix	1	1	(untitled)											
J	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	19	6.24	✓	1831
Jx	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	42.47		1985
K	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	9	6.00	✓	1873

Kx	1	1	(untitled)										
A1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	15	6.00	✓	1870
Ax1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E1	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	100	6.00	✓	1532
F1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	12	15.01	✓	1917
Fx1	1	1	(untitled)											
G1	1	1	(untitled)											1800
H1	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	24	13.82	✓	1891
Hx1	1	1	(untitled)											1800
A2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
Ax2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00	✓	1940
E2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00		2055
F2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Fx2	1	1	(untitled)											
G2	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
H2	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	0	99999.00		2080
Hx2	1	1	(untitled)											1800
E3	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	0	99999.00	✓	1915
G3	1	1	(untitled)											1800
Hx3	1	1	(untitled)											
G4	1	1	(untitled)		✓	N/A	N/A	0	3.25	✓	100	20.27		1937
Hx4	1	1	(untitled)											

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
Ax1	1	1	A	
E1	1	2	C	
F1	1	2	B	
H1	1	2	B	
A2	1	1	A	
E2	1	2	C	
F2	1	2	A	
G2	1	2	D	
H2	1	2	A	
G4	1	2	E	

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
B	1	Movement					
C	1	Movement					
D	1	Movement					
I	1	Movement	✓	0	✓	7.88	
J	1	Movement	✓	0	✓	6.24	
A1	1	Movement					
G1	1	AllTraffic					
G4	1	Movement	✓	0	✓	20.27	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	Hx1/1	100	0.10		0	0
		TrafficStream	Hx2/1	100	1.00		0	0

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
B	1	1	Dx/1	1500	1555		100
		2	Cx/1	1500	1555		100
		3	Ax1/1	1400	1555		100
C	1	1	Dx/1	1800	1835	0	100
		2	Bx/1	900	1835	0	100
		3	Ax1/1	1800	1835	0	100
D	1	1	Bx/1	1000	1606		100
		2	Cx/1	1000	1606		100
		3	Ax1/1	1000	1606		100
I	1	1	Jx/1		1532		100
		2	Kx/1		1532		100
J	1	1	Ix/1		1831		100
		2	Kx/1		1831		100
A1	1	1	Dx/1	1800	1870	0	100
		2	Cx/1	1800	1870	0	100
		3	Bx/1	1800	1870	0	100
G4	1	1	Fx1/1		1937		100
		2	Fx2/1		1937		100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling traffic stream	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
B	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.10		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
		2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.10		0	0
		3	Ax1/1		TrafficStream	C/1			100	0.10		0	0
					TrafficStreamMovement		D/1	Bx/1	100	0.10		0	0
					TrafficStreamMovement		D/1	Ax1/1	100	1.00		0	0
					TrafficStream	A1/1			100	1.00		0	0
C	1	2	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0

				opposing flow									
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
		1	Bx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Bx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		A1/1	Cx/1	100	0.25		0	0
D	1	2	Cx/1	Crossroads opposing flow	TrafficStreamMovement		A1/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Cx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Dx/1	100	0.25		0	0
				Crossroads opposing flow	TrafficStreamMovement		B/1	Ax1/1	100	0.25		0	0
		3	Ax1/1		TrafficStreamMovement		C/1	Ax1/1	100	0.25		0	0
		1	Jx/1		TrafficStreamMovement		K/1	Jx/1	100			0	0
I	1	2	Kx/1		TrafficStream	J/1			100			0	0
					TrafficStreamMovement		K/1	Jx/1	100			0	0
J	1	1	Ix/1		TrafficStream	K/1			100			0	0
				Crossroads opposing flow	TrafficStreamMovement		C/1	Dx/1	100	0.10		0	0
A1	1	1	Dx/1	Crossroads opposing flow	TrafficStreamMovement		C/1	Ax1/1	100	1.00		0	0
					TrafficStreamMovement		C/1	Bx/1	100	0.10		0	0
		1	Fx1/1		TrafficStream	E1/1			100			0	0
G4	1				TrafficStream	E2/1			100			0	0
		2	Fx2/1		TrafficStream	E1/1			100			0	0
					TrafficStream	E2/1			100			0	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Interstage Matrix for Controller Stream 1

	To		
		1	2
From	1	0	0
	2	0	0

Interstage Matrix for Controller Stream 2

	To			
		1	2	3
From	1	0	0	5
	2	0	0	5
	3	6	7	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	64	44	100	1	7
	2	✓	2	B	44	64	20	1	20
2	1	✓	1	A	37	38	1	1	1
	2	✓	2	A,B	38	84	46	1	7
	3	✓	3	C,D,E	89	31	62	1	7

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
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)	Max end of red queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
B	1	(untitled)	1			351 <	992	120	11.76	41	118	7.70	5.30	27.67	3.53 +		100	100	0.00	8.55
Bx	1	(untitled)	3			227	Unrestricted	120	12.00	0	Unrestricted	2.40	0.00	0.00	0.00		100	100	0.00	0.00
C	1	(untitled)	1			622	1402	120	16.62	50	80	16.57	2.77	9.76	3.28		100	100	0.00	7.55
Cx	1	(untitled)	9			797	1915	120	10.00	42	116	14.47	0.67	0.00	0.15		100	100	0.00	2.10
D	1	(untitled)	1			35	676	120	118.98	6	1446	6.61	0.61	6.35	0.09		100	100	0.00	0.11
Dx	1	(untitled)				26	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	0.00		100	100	0.00	0.00
Ex	1	(untitled)	9			595	1800	120	10.17	33	172	14.31	0.51	0.85	1.56		100	100	0.00	1.25
Gx	1	(untitled)				786	Unrestricted	120	4.00	0	Unrestricted	9.15	0.00	0.00	0.00		100	100	0.00	0.00
I	1	(untitled)	4			106	983	120	0.00	11	735	2.02	0.22	0.00	0.01		100	100	0.00	0.09
Ix	1	(untitled)				71	Unrestricted	120	35.00	0	Unrestricted	1.80	0.00	0.00	0.00		100	100	0.00	0.00
J	1	(untitled)	4			221	1686	120	11.00	13	587	2.56	0.16	0.00	0.01		100	100	0.00	0.14
Jx	1	(untitled)	3			374	1985	120	0.00	19	378	2.61	0.21	0.00	0.02		100	100	0.00	0.31
K	1	(untitled)	4			333	1873	120	0.00	18	406	3.81	0.21	0.00	0.02		100	100	0.00	0.27
Kx	1	(untitled)				215	Unrestricted	120	7.00	0	Unrestricted	6.19	0.00	0.00	0.00		100	100	0.00	0.00
A1	1	(untitled)	1			655	1862	120	19.00	35	156	1.79	0.79	0.00	0.14		100	100	0.00	2.03
Ax1	1	(untitled)	2	1	A	613 <	1940	100	0.22	38	139	2.66	1.66	6.94	1.42 +	1.42	100	100	0.00	4.45
E1	1	(untitled)	5	2	C	101	1532	62	13.00	13	617	22.13	14.33	42.27	1.46	1.42	100	100	0.00	6.25
F1	1	(untitled)	5	2	B	586 <	1917	46	0.00	78	15	52.29	40.29	92.36	18.44 +	13.24	100	100	0.00	99.91
Fx1	1	(untitled)				570	Unrestricted	120	6.00	0	Unrestricted	13.23	0.00	0.00	0.00		100	100	0.00	0.00
G1	1	(untitled)	7			236	1036	120	19.00	23	295	3.18	0.78	1.43	1.48		100	100	0.00	0.77
H1	1	(untitled)	5	2	B	606	1891	46	0.00	82	10	67.21	43.21	96.13	19.78	14.06	100	100	0.00	110.59
Hx1	1	(untitled)	3			515	1800	120	69.00	29	215	6.01	0.40	0.00	0.06		100	100	0.00	0.81
A2	1	(untitled)	2	1	A	655	1940	100	0.72	40	123	12.12	3.12	21.28	4.81	3.96	100	100	0.00	9.80
Ax2	1	(untitled)	10			613	1940	120	19.00	32	185	12.43	0.43	0.00	0.07		100	100	0.00	1.04
E2	1	(untitled)	5	2	C	715	2055	62	0.00	66	36	28.57	20.77	45.16	10.77	10.67	100	100	0.00	62.63
F2	1	(untitled)	5	2	A	515	2080	47	11.00	62	45	44.20	32.20	80.78	14.09	10.80	100	100	0.00	70.63

Fx2	**1**	(untitled)				570	Unrestricted	120	6.00	0	Unrestricted	13.31	0.00	0.00	0.00		100	100	0.00	0.00
G2	**1**	(untitled)	5	2	D	449	1915	62	0.24	45	101	7.76	6.56	10.89	1.63	1.63	100	100	0.00	12.24
H2	**1**	(untitled)	5	2	A	460	2080	47	0.00	55	63	54.40	30.40	77.53	12.10	9.54	100	100	0.00	59.63
Hx2	**1**	(untitled)	3			515 <	1800	120	68.00	29	215	7.09	1.42	39.03	12.70 +		100	100	0.00	5.41
E3	**1**	(untitled)	8			816	1915	120	19.10	46	95	16.99	3.19	27.05	9.07		100	100	0.00	13.04
G3	**1**	(untitled)	6			685 <	1800	120	48.58	64	41	22.99	18.19	64.49	15.41 +		100	100	0.00	54.70
Hx3	**1**	(untitled)				633	Unrestricted	120	0.00	0	Unrestricted	5.83	0.00	0.00	0.00		100	100	0.00	0.00
G4	**1**	(untitled)	5	2	E	118	271	62	0.00	83	9	99.33	93.33	131.87	5.40	3.53	100	100	0.00	45.39
Hx4	**1**	(untitled)				633	Unrestricted	120	0.00	0	Unrestricted	6.00	0.00	0.00	0.00		100	100	0.00	0.00

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	1212.43	78.03	15.54	28.86	8.72	533.66	46.04	0.00	579.71
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians									
TOTAL	1212.43	78.03	15.54	28.86	8.72	533.66	46.04	0.00	579.71

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