LLYNNOEDD HENDRE CAERDYDD
CARDIFF HENDRE LAKES
Gwasanaethir gan Parcfforddd Caerdydd
Served by Cardiff Parkway

ARUP

CARDIFF HENDRE LAKES

Transport Assessment : Appendices

August 2020

Appendix I

Road Traffic Collision data

COLLISION SEARCH AREA

CRASH SEVERITY

- SLIGHT
- SERIOUS
- FATAL

NOTES:

REV	DATE	AMENDMENT

CYNLLUNIO, TRAFNIDIAETH A'R AMGYLCHEDD

PLANNING, TRANSPORT & ENVIRONMENT

PROJECT TITLE

Newport Road Area

DRAWING TITLE

Collision Data Plan
5 Year Collision Data (2013 to 2017)

SCALE @ A1	DATE
NTS	10/06/2019
PROJECT No.	DRAWING No.
DRAWN BY	DP

CARDIFF CAERDYDD

CARDIFF COUNTY COUNCIL
CYNGOR SIR CAERDYDD

TRANSPORT PROJECTS
County Hall,
Atlantic Wharf,
Cardiff,
CF10 4UW.

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Appendix J

Bristol Parkway Car Parking Survey Results

Cardiff Parkway Developments Ltd

Cardiff Parkway

Bristol Parkway Car Parking Survey Results

Issue | 20 September 2019

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 252199

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ARUP

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Appendix A

Bristol Parkway Survey Data

1 Introduction

1.1 Background

Ove Arup & Partners Ltd (Arup) has been instructed by Cardiff Parkway Developments Limited (CPDL) to provide traffic and transportation advice in support of the Cardiff Parkway development proposals that will comprise a railway station, park & ride, transport interchange and Business District. This allocated site is identified in the City of Cardiff Council (CCC) Local Development Plan (LDP) as Policy KP2 (H).

The vision for Cardiff Parkway is of a vibrant, employment-led development. The development site will be accessible by a variety of transport modes and will be an amenity for those currently residing within the Cardiff city region.

As part of the ongoing discussions with CCC as the Local Highways Authority, it was agreed that a survey of Bristol Parkway would be commissioned to inform the trip making assumptions for the proposed Cardiff Parkway railway station.

1.2 Bristol Parkway Car Parking Survey

Bristol Parkway Railway Station is in Stoke Gifford, five miles north of Bristol city centre. The four platformed railway station on the South Wales Main Line is served by numerous services to Bristol Temple Meads, Cardiff, London, Birmingham and Manchester.

The station is supported by the following:

- A ‘Park and Ride’ (long stay) car park with a total capacity of 1,095 spaces;
- Additional long-stay car parking (220 spaces) located 600m from the station entrance;
- A short stay car park with a total capacity of 45 spaces;
- As part of the short-stay parking available, there is a dedicated ‘drop-off and pick-up only’ car park for around 12 vehicles;
- A taxi rank with capacity for 38 vehicles to wait at one time;
- Cycle parking for 156 bicycles; and
- Bus layby with capacity for two buses.

The carparks are operated by APCOA; as of 30/08/2019 the daily weekday rate is £8.70, the daily weekend rate is £5.20, and the weekly rate is £43.50. The station is served by eight bus routes linking it with the surrounding areas of Bristol and South Gloucestershire.

To establish information on the number of vehicles using the long-stay car parks, drop-off and taxi rank, a vehicle entry/exit count survey was conducted through video observation.

The one-day survey was undertaken over the period 05:30 – 22:00 on Tuesday 16th July 2019; during both the Bristol and South Gloucestershire term times. The weather conditions on the day of the survey were cloudy throughout with some clearer spells. The survey can be found in Appendix A.

The survey collected information on vehicle movements (entry and exit) to the station's park & ride (long stay) car park, short-stay and 'drop-off and pick-up only' car park and the taxi rank. The overflow car park was excluded from the study as it is located much further from the station and therefore only likely to be used when the other long-stay car parking is full.

The number of vehicles, categorised into car, motorbike, taxi, and 'other,' was recorded at 15-minute intervals. Only car and taxi vehicle movements have been considered in detail by this report.

It is noted that several vehicles entered the various car parks via the exit, or vice versa (exited via the entry), all of these have been recorded.

2 Travel Characteristics

2.1 Vehicle Movements

Table 1 below presents the number of vehicle movements in and out of Bristol Parkway.

Table 1: Overview of Vehicle Movements

	Weekday Daily Total (05:30 – 22:00)		Weekday AM Peak Hour (07:45 - 08:45)		Weekday PM Peak Hour (16:30 - 17:30)	
	Entry	Exit	Entry	Exit	Entry	Exit
Park and ride (Long-stay)	1395	1378	204	30	39	154
Short-stay and drop-off	1212	1212	70	72	103	101
Taxi rank	405	405	29	29	37	37
Total	**3012**	**2995**	**303**	**131**	**179**	**292**

Figure 1 below presents the ratio of all vehicle movements to the P&R, short-stay and drop-off and taxi rank for the full survey period. In summary, 46% of vehicles used the P&R car park, 40% of vehicles used the short-stay and drop-off car park, whilst taxis at the taxi rank accounted for 14% of the overall vehicle movements.

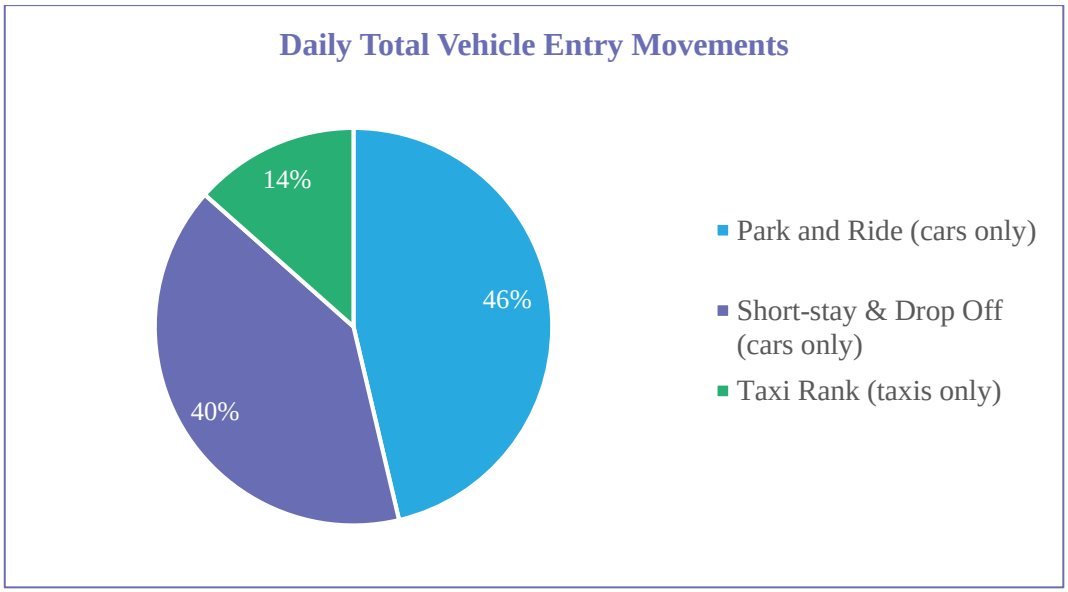

Figure 1: Ratio of Vehicle Movements (Daily)

Figure 2 below presents the ratio of entry vehicle movements to the P&R, short-stay and drop-off and taxi rank for the peak AM hour.

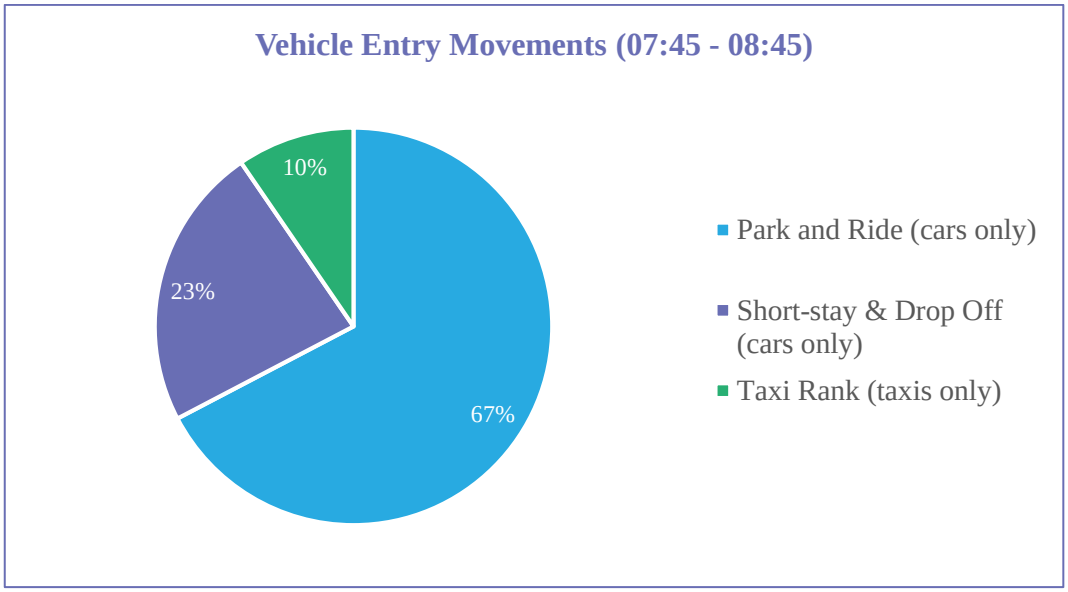

Figure 2: Ratio of Vehicle Entry Movements (07:45–08:45)

In summary, 67% of vehicles entered the P&R car park, 23% of vehicles entered the short-stay and drop-off car park, whilst taxis entering the taxi rank accounted for 10% of the overall vehicle entry movements. Vehicle movements to the short-stay and drop-off were significantly less than the daily average.

Figure 3 below presents the ratio of exit vehicle movements to the P&R, short-stay and drop-off and taxi rank for the peak AM hour.

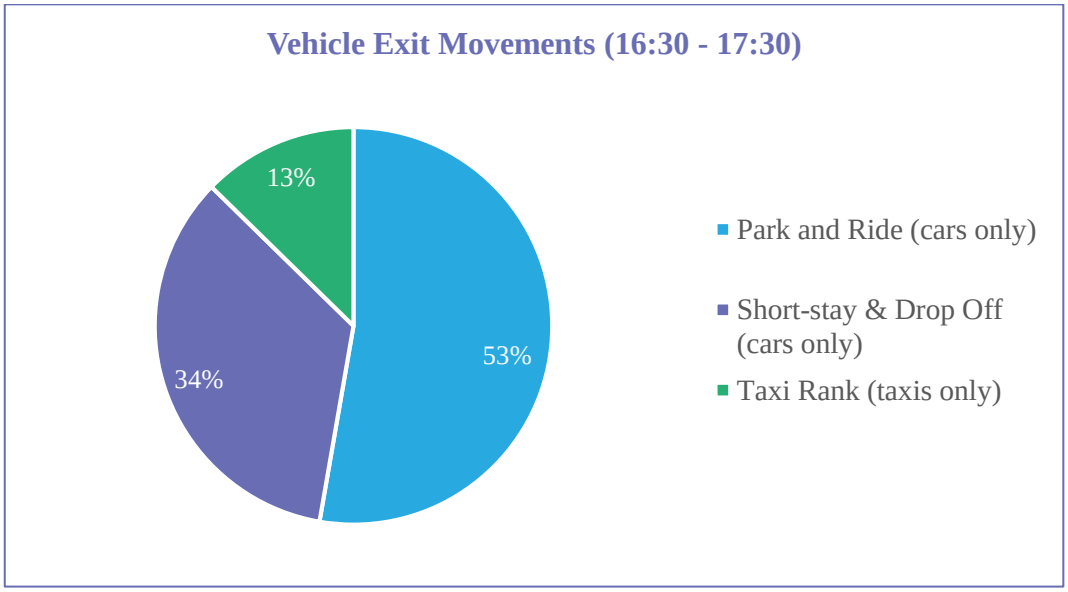

Figure 3: Ratio of Vehicle Exit Movements (16:30–17:30)

In summary, 53% of vehicles exited via the P&R car park, 34% of vehicles exited the short-stay and drop-off car park, whilst taxis exiting the taxi rank accounted for 13% of the overall vehicle exit movements. Vehicle movements to the short-stay and drop-off were significantly less than the daily average.

2.2 Drop-off/Pick-up Car Park

Additional information was collected for the drop off/pick-up only zone relating to vehicle entry time, classification (car, taxi, or LGV), journey type (drop-off or pick-up), number of passengers, exit time, and dwell time. It is to be noted that vehicles either parking, waiting, or showing no activity have been excluded from the following analysis.

Figure 4 illustrates the ratio of car vehicle movements to the drop-off/pick-up only car park. This is segregated from the other short-stay parking spaces.

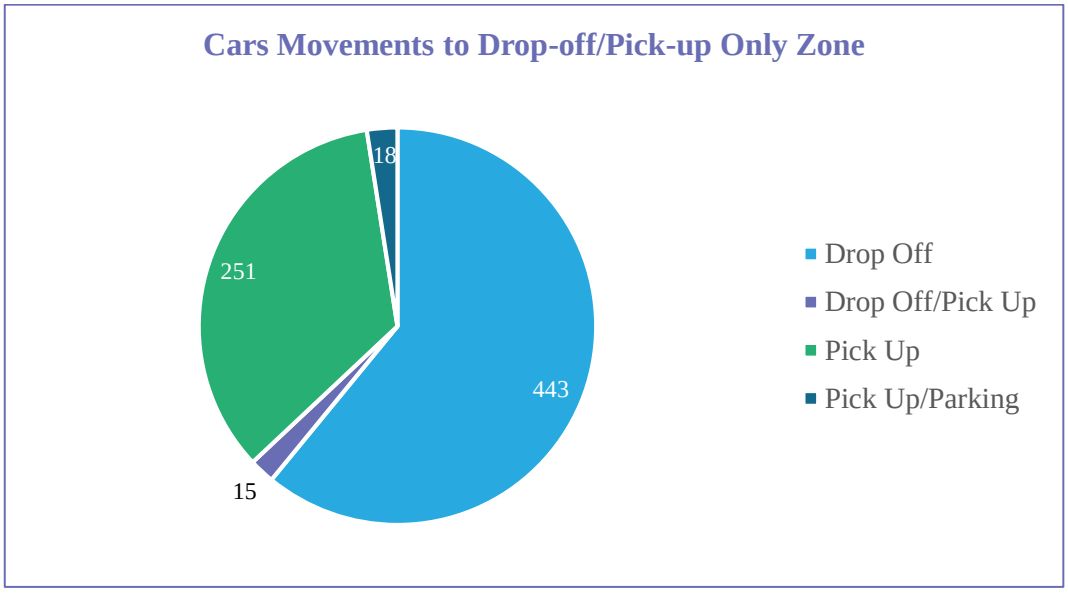

Figure 4: Vehicle Movements to Drop-off/Pick-up Only Zone

As presented above, 61% of cars entered the zone to drop off passenger(s) compared to 35% entering the area to pick up passenger(s).

Using the dwell time date collected, the average layover time by vehicle type has been calculated and shown in Table 2 below.

Table 2: Drop-off/Pick-up Only Zone Average Layover Time

	Car	Taxi	LGV
Average layover time (min:sec)	03:40	03:23	02:44

The average layover time for cars using the drop-off or pick-up only zone was 3 minutes 40 seconds.

2.3 Taxi Rank

Taxis were observed to drop passengers off in the drop-off/pick-up car park and collect passengers from the taxi rank. The survey data does not specify the proportion of taxis that both drop passengers off and then also queue in the taxi rank to collect another passenger.

To understand the proportion of taxis that would collect a passenger from the taxi rank directly after dropping off another passenger, the number of passengers being dropped-off and picked-up in the peak hours have been compared.

Table 3: Ratio of Passengers Dropped-off and Picked-up by Taxi

Period	Drop-off	Pick-up	Difference	Drop-off and Pick-up (%)
07:45-08:45	28	29	1	96%
16:30-17:30	46	37	9	80%
06:00-22:00	426	405	21	95%

In the AM peak hour (07:45-08:45), a similar number of passengers were dropped-off and picked-up by taxi, resulting in the potential for up to 96% of collections to be made by taxis that have just dropped off a passenger. In the PM peak hour, up to 80% of taxis could drop-off and pick-up a passenger.

Given the relatively similar demand in taxi collections and drop-offs in the weekday peak hours, it is considered reasonable to assume most taxis queue in the taxi rank after dropping-off a passenger.

2.4 Vehicle Occupancy

Table 4 summarises the key information obtained from vehicles using the drop-off/pick-up only zone. As before, any vehicles either parking, waiting or showing no activity in this zone have been excluded from the table and the following calculations.

Table 4: Vehicles using the Drop-off/Pick-up Only Zone

	No. of vehicles	No. of passengers	Ave. No. of passengers	Ratio No. of passengers (%)
Car	727	861	1.2	61
LGV	14	14	1.0	1
Taxi	400	537	1.3	38
Total	**1,141**	**1,412**	**1.2**	**100**

The majority of vehicles entering the drop off/pick-up only zone were cars; which accounted for 727 vehicle movements and 61% of the overall passengers either dropped off or picked up within the zone. Taxis accounted for 400 of the vehicles entering the zone and 38% of all passengers.

The overall average number of passengers per vehicle was 1.2; with cars averaging 1.2, taxis averaging 1.3 and LGVs averaging 1.0 passengers per vehicle.

2.5 Daily Profiles

Figure 5 depicts the daily profile of the Park & Ride (long-stay) car park.

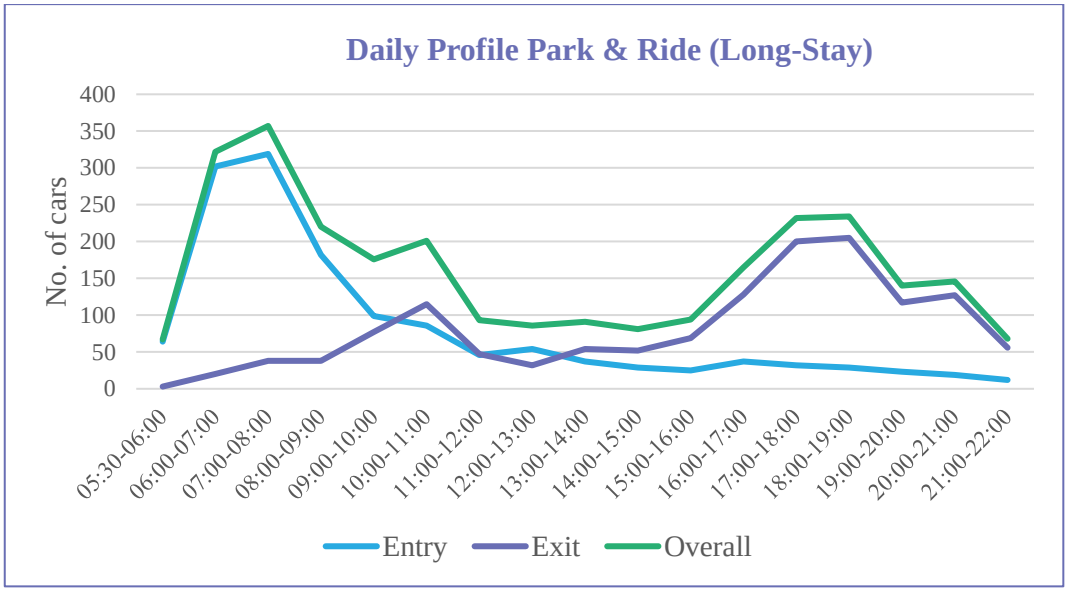

Figure 5: Daily Profile of the Park & Ride (long-stay) Car Park

The daily profile for the overall vehicle movements within the P&R carpark is represented in Figure 5, along with the separate hourly entry and exit profiles. As one would expect, the hourly number of vehicles entering the car park peaks in the busy morning hours reaching 319 vehicles between 07:00 – 08:00. The number of vehicles entering the carpark then decreases rapidly to 47 between 11:00 – 12:00, and even further to just 12 vehicles between 21:00 – 22:00.

Alternatively, the hourly number of vehicles recorded exiting the P&R carpark was 38 between 07:00 – 08:00, rising over the duration of the day to reach a peak of 205 vehicles between 18:00 – 19:00. Between 07:45 – 08:45 the number of vehicles entering the P&R carpark was 204 compared with 30 exiting. Between 16:30 – 17:30 the number of vehicles exiting the car park was 154 compared to only 39 entering.

The daily entry profiles for the short-stay & drop-off car park and the taxi rank are presented in Figure 6 and Figure 7 respectively.

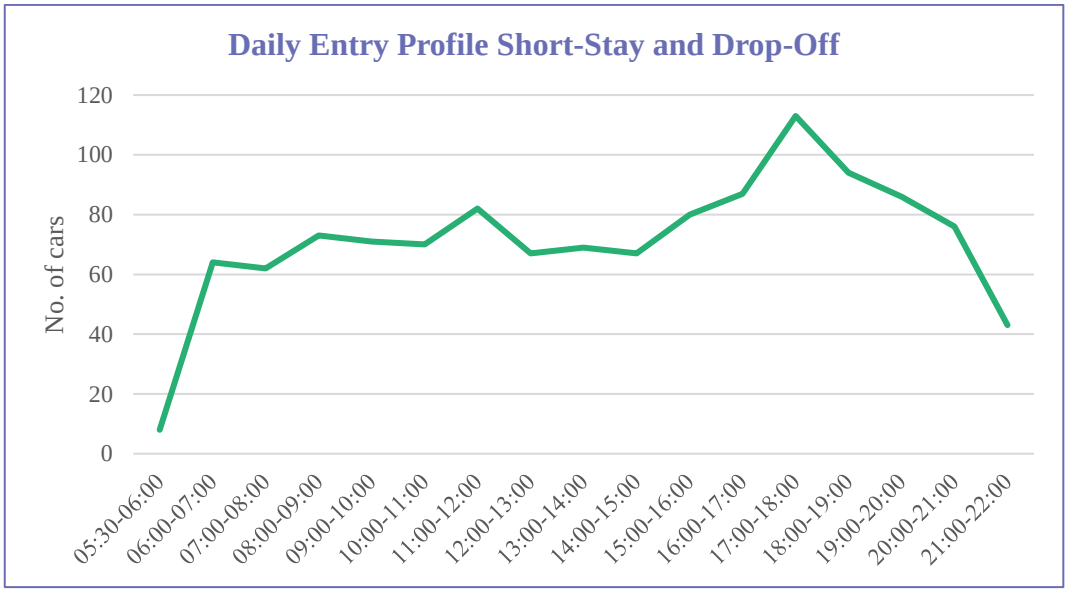

Figure 6: Daily Profile for Short-stay and Drop-off Car Park

Hourly vehicle movements within the short-stay and drop-off carparks reached 113 between 17:00–18:00. In the AM peak hour (07:45–8:45), 70 vehicles entered the car park compared to 103 in the PM peak hour (16:30–17:30).

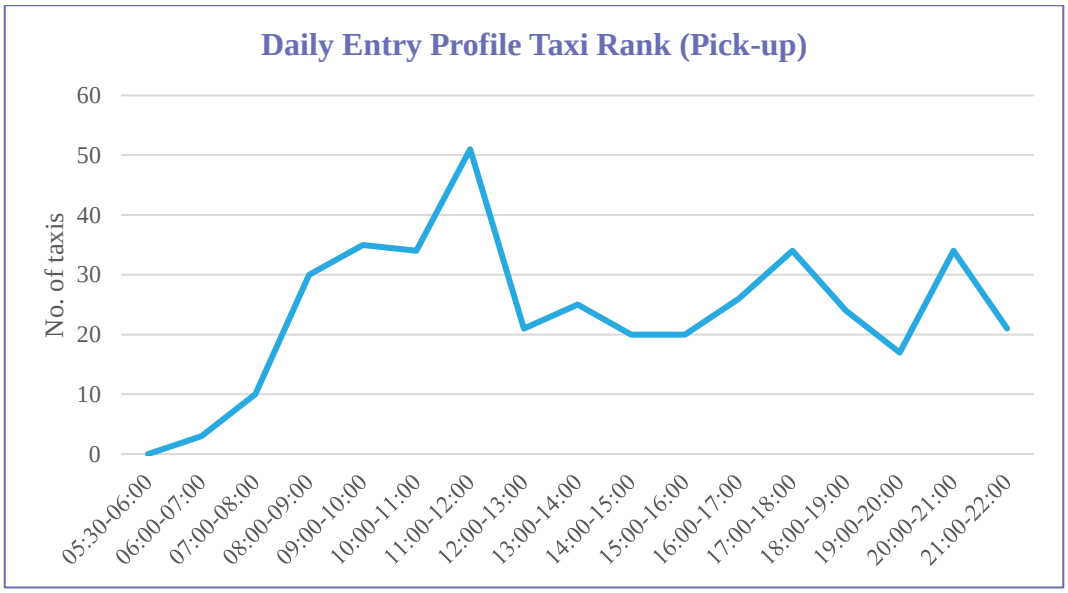

Figure 7: Daily Profile of the Taxi Rank

Within the taxi rank, hourly vehicle movements peaked at 51 movements recorded between 11:00–12:00. Between 07:45–8:45 there were 29 vehicle movements to the taxi rank compared to 37 between 16:30–17:30.

3 Summary and Conclusions

Ove Arup & Partners Ltd (Arup) has been instructed by Cardiff Parkway Developments Limited (CPDL) to provide traffic and transportation advice in support of the Cardiff Parkway development proposals.

In agreement with Cardiff council as the local highways authority, a survey of Bristol Parkway has been be commissioned to inform the trip making assumptions for the proposed Cardiff Parkway railway station.

The key findings from this survey of Bristol Parkway which will inform the trip making assumptions for Cardiff Parkway railway station include the following:

- The ratio of taxi pick-ups and drop-offs in the peak hours suggest most taxis pick-up a passenger after dropping someone else off;
- Drop-off (excluding taxi) accounted for 23% of all car journeys arriving to the station in the AM peak hour;
- In the PM peak hour, drop-off (excluding taxi) accounted for 35% of all car movements departing from the station.

Appendix A

Bristol Parkway Survey Data

Tracsis plc
Traffic and Data Services

Client: Arup
Project: 3955-MID Bristol Parkway Passenger Drop Off
Site: MSCP
Date: Tuesday 16 July 2019

Zone 1 - Long Stay Parking

	Entry						Exit					
	Car	Motorbike	Taxi	Other	(Specify)	Total	Car	Motorbike	Taxi	Other	(Specify)	Total
05:30	20	0	0	0		20	0	0	0	0		0
05:45	20	1	0	0		20	1	0	0	0		1
1 Hr	40	1	0	0		40	1	0	0	0		1
06:00	31	0	0	0		31	0	0	0	0		0
06:15	54	0	0	0		54	0	0	0	0		0
06:30	46	0	0	0		46	1	0	0	0		1
06:45	40	0	0	0		40	3	0	0	1	LGV	3
1 Hr	171	0	0	0		171	4	0	0	1		4
07:00	57	2	0	0		57	1	0	0	0		1
07:15	46	0	0	0		46	7	0	0	0		7
07:30	30	0	0	1	LGV	30	1	0	1	0		1
07:45	29	0	0	1	LGV	29	1	0	1	0		1
1 Hr	162	2	0	2		162	10	0	2	0		10
08:00	22	0	0	0		22	1	0	1	0		1
08:15	26	0	0	0		26	2	0	0	1	Cyclist	2
08:30	14	0	0	0		14	2	0	2	0		2
08:45	20	0	0	0		20	2	0	0	0		2
1 Hr	82	0	0	0		82	7	0	3	1		7
09:00	10	0	0	0		10	1	0	0	0		1
09:15	8	0	0	0		8	2	0	0	0		2
09:30	13	0	0	0		13	7	0	0	0		7
09:45	8	0	0	0		8	3	0	0	0		3
1 Hr	39	0	0	0		39	13	0	0	0		13
10:00	8	0	0	0		8	13	1	0	0		13
10:15	7	0	0	0		7	4	0	0	1	LGV	4
10:30	7	0	0	0		7	8	0	0	0		8
10:45	7	0	0	0		7	7	0	0	0		7
1 Hr	29	0	0	0		29	32	1	0	1		32
11:00	0	0	0	0		0	1	0	0	0		1
11:15	7	0	0	0		7	5	0	0	0		5
11:30	1	0	0	0		1	1	0	0	0		1
11:45	4	0	0	0		4	2	0	0	0		2
1 Hr	12	0	0	0		12	9	0	0	0		9
12:00	4	0	0	0		4	1	0	0	0		1
12:15	4	0	0	0		4	1	0	2	0		1
12:30	3	0	0	0		3	1	0	0	0		1
12:45	5	0	0	0		5	1	0	0	0		1
1 Hr	16	0	0	0		16	4	0	2	0		4
13:00	3	0	0	1	LGV	3	2	0	0	0		2
13:15	0	0	0	1	LGV	0	2	0	0	0		2
13:30	3	0	0	0		3	8	0	1	0		8
13:45	2	0	0	0		2	3	0	0	0		3
1 Hr	8	0	0	2		8	15	0	1	0		15
14:00	0	0	0	0		0	5	0	0	0		5
14:15	2	0	0	0		2	6	0	0	0		6
14:30	2	0	0	0		2	5	0	0	0		5
14:45	3	0	0	0		3	5	0	0	0		5
1 Hr	7	0	0	0		7	21	0	0	0		21
15:00	1	0	0	1	LGV	1	9	0	0	0		9
15:15	1	0	0	0		1	0	0	0	0		0
15:30	3	0	0	0		3	2	0	1	0		2
15:45	4	0	0	0		4	8	0	0	0		8
1 Hr	9	0	0	1		9	19	0	1	0		19
16:00	1	0	0	0		1	4	0	0	0		4
16:15	2	0	0	0		2	14	0	0	0		14
16:30	2	0	0	1	LGV	2	19	1	1	0		19
16:45	1	0	0	0		1	3	0	2	0		3
1 Hr	6	0	0	1		6	40	1	3	0		40
17:00	0	0	0	0		0	6	1	0	0		6
17:15	1	0	0	0		1	20	0	0	0		20
17:30	0	0	0	0		0	26	1	0	0		26
17:45	2	0	0	0		2	5	0	0	0		5
1 Hr	3	0	0	0		3	57	2	0	0		57
18:00	2	0	0	0		2	30	0	0	0		30
18:15	1	0	0	0		1	0	0	0	0		0
18:30	1	0	0	0		1	26	0	0	0		26
18:45	0	0	0	0		0	6	0	0	0		6
1 Hr	4	0	0	0		4	62	0	0	0		62
19:00	0	0	0	0		0	1	0	0	0		1
19:15	1	0	0	0		1	28	0	0	0		28
19:30	3	0	0	0		3	8	0	0	0		8
19:45	1	0	0	0		1	10	0	0	0		10
1 Hr	5	0	0	0		5	47	0	0	0		47
20:00	0	0	0	0		0	28	0	0	0		28
20:15	1	0	0	0		1	6	0	0	0		6
20:30	2	0	0	0		2	18	1	0	0		18
20:45	0	0	0	0		0	0	0	0	0		0
1 Hr	3	0	0	0		3	52	1	0	0		52
21:00	0	0	0	0		0	4	0	0	0		4
21:15	0	0	0	0		0	2	0	0	0		2
21:30	0	0	0	0		0	8	0	0	0		8
21:45	2	0	0	0		2	5	1	0	0		5
1 Hr	2	0	0	0		2	19	1	0	0		19
Total	598	3	0	6		598	412	6	12	3		412

Zone 2 - Long Stay Diasbled and Motorbike Parking

	Entry						Exit					
	Car	Motorbike	Taxi	Other	(Specify)	Total	Car	Motorbike	Taxi	Other	(Specify)	Total
05:30	7	0	0	0		7	1	0	0	0		1
05:45	13	0	0	0		13	1	0	0	0		1
1 Hr	20	0	0	0		20	2	0	0	0		2
06:00	18	0	0	0		18	2	0	0	0		2
06:15	36	0	0	0		36	0	0	0	0		0
06:30	20	0	0	0		20	0	0	0	0		0
06:45	34	0	0	1	LGV	34	5	0	0	0		5
1 Hr	108	0	0	1		108	7	0	0	0		7
07:00	33	0	0	1	LGV	33	5	0	0	0		5
07:15	36	2	0	0		36	7	0	0	0		7
07:30	20	0	0	0		20	4	0	0	0		4
07:45	25	0	0	3	Cyclist	25	4	0	0	0		4
1 Hr	114	2	0	4		114	20	0	0	0		20
08:00	17	1	0	0		17	4	0	0	0		4
08:15	25	0	0	0		25	5	0	0	0		5
08:30	17	1	0	0		17	2	0	0	0		2
08:45	15	0	0	0		15	8	0	0	0		8
1 Hr	74	2	0	0		74	19	0	0	0		19
09:00	9	0	0	0		9	4	0	0	0		4
09:15	8	0	0	0		8	3	0	0	0		3
09:30	12	0	0	0		12	18	1	0	0		18
09:45	7	0	0	0		7	10	0	0	0		10
1 Hr	36	0	0	0		36	35	1	0	0		35
10:00	8	0	0	0		8	13	0	0	0		13
10:15	2	0	0	0		2	7	0	0	0		7
10:30	8	0	0	0		8	13	0	0	1	LGV	13
10:45	4	0	0	0		4	15	0	0	1	LGV	15
1 Hr	22	0	0	0		22	48	0	0	2		48
11:00	4	0	0	0		4	5	0	0	0		5
11:15	1	0	0	2	Cyclist	1	2	0	0	0		2
11:30	2	0	0	0		2	0	0	0	0		0
11:45	4	0	0	1	Cyclist	4	2	0	0	0		2
1 Hr	11	0	0	3		11	9	0	0	0		9
12:00	1	0	0	0		1	3	0	0	0		3
12:15	3	0	1	0		3	0	0	0	0		0
12:30	4	0	0	0		4	3	0	0	0		3
12:45	4	0	0	2	LGV x 1, Cyclist x 1	4	4	0	0	0		4
1 Hr	12	0	1	2		12	10	0	0	0		10
13:00	2	0	0	2	LGV x 1, Cyclist x 1	2	0	0	0	0		0
13:15	3	0	0	0		3	6	0	0	0		6
13:30	3	0	0	3	LGV x 1, Cyclist x 2	3	5	0	1	0		5
13:45	4	0	0	0		4	1	0	0	0		1
1 Hr	12	0	0	5		12	12	0	1	0		12
14:00	3	0	0	0		3	1	0	0	0		1
14:15	4	0	0	1	Cyclist	4	6	0	0	1	Cyclist	6
14:30	5	0	0	0		5	5	0	0	0		5
14:45	5	0	1	0		5	2	0	0	0		2
1 Hr	17	0	1	1		17	14	0	0	1		14
15:00	5	0	0	0		5	17	0	0	0		17
15:15	2	0	0	0		2	5	0	0	0		5
15:30	3	0	0	0		3	3	0	0	2	LGV	3
15:45	1	0	0	0		1	11	0	0	0		11
1 Hr	11	0	0	0		11	36	0	0	2		36
16:00	3	0	0	1	Cyclist	3	7	0	0	0		7
16:15	1	0	0	0		1	19	0	0	1	LGV	19
16:30	5	0	3	0		5	17	0	1	2	LGV	17
16:45	4	0	2	0		4	9	0	1	0		9
1 Hr	13	0	5	1		13	52	0	2	3		52
17:00	5	0	0	1	Cyclist	5	18	0	0	0		18
17:15	6	0	0	1	Cyclist	6	22	0	0	0		22
17:30	6	0	1	0		6	52	1	0	1	LGV	52
17:45	2	0	0	0		2	7	0	1	0		7
1 Hr	19	0	1	2		19	99	1	1	1		99
18:00	4	0	0	0		4	37	0	0	0		37
18:15	2	0	0	0		2	5	0	0	0		5
18:30	4	0	0	0		4	39	1	0	0		39
18:45	1	0	0	0		1	8	0	0	0		8
1 Hr	11	0	0	0		11	89	1	0	0		89
19:00	0	0	0	0		0	4	0	0	0		4
19:15	3	0	0	0		3	29	0	0	0		29
19:30	0	0	0	0		0	7	0	0	1	LGV	7
19:45	2	0	0	0		2	11	0	0	0		11
1 Hr	5	0	0	0		5	51	0	0	1		51
20:00	0	0	0	0		0	15	0	0	0		15
20:15	0	0	0	1	Cyclist	0	3	0	0	0		3
20:30	0	0	0	0		0	24	0	0	0		24
20:45	1	0	0	0		1	4	0	0	0		4
1 Hr	1	0	0	1		1	46	0	0	0		46
21:00	0	0	0	0		0	2	0	0	0		2
21:15	2	0	0	0		2	1	0	0	0		1
21:30	2	0	0	2	LGV x 1, Cyclist x 1	2	10	1	0	1	LGV	10
21:45	1	0	0	0		1	6	0	0	0		6
1 Hr	5	0	0	2		5	19	1	0	1		19
Total	491	4	8	22		491	568	4	4	11		568

Zone 2 - Long Stay Diasbled and Motorbike Parking

	Entry Via Exit						Exit Via Entry					
	Car	Motorbike	Taxi	Other	(Specify)	Total	Car	Motorbike	Taxi	Other	(Specify)	Total
05:30	0	0	0	0		0	0	0	0	0		0
05:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
06:00	0	0	0	0		0	0	0	0	0		0
06:15	0	0	0	0		0	0	0	0	0		0
06:30	0	0	0	0		0	0	0	0	0		0
06:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
07:00	0	0	0	0		0	0	0	0	0		0
07:15	0	0	0	0		0	0	0	0	0		0
07:30	0	0	0	0		0	0	0	0	0		0
07:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
08:00	0	0	0	0		0	0	0	0	0		0
08:15	0	0	0	0		0	0	0	0	0		0
08:30	0	0	0	0		0	0	0	0	0		0
08:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
09:00	0	0	0	0		0	0	0	0	0		0
09:15	0	0	0	0		0	0	0	0	0		0
09:30	0	0	0	0		0	1	0	0	0		1
09:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	1	0	0	0		1
10:00	0	0	0	0		0	1	0	0	0		1
10:15	0	0	0	0		0	1	0	0	0		1
10:30	0	0	0	0		0	1	0	0	0		1
10:45	0	0	0	0		0	1	0	0	0		1
1 Hr	0	0	0	0		0	4	0	0	0		4
11:00	0	0	0	0		0	0	0	0	0		0
11:15	0	0	0	0		0	0	0	0	0		0
11:30	0	0	0	0		0	0	0	0	0		0
11:45	0	0	0	0		0	1	0	0	0		1
1 Hr	0	0	0	0		0	1	0	0	0		1
12:00	0	0	0	0		0	0	0	0	0		0
12:15	0	0	0	0		0	0	0	0	0		0
12:30	0	0	0	0		0	0	0	0	0		0
12:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
13:00	0	0	0	0		0	0	0	0	0		0
13:15	0	0	0	0		0	0	0	0	0		0
13:30	0	0	0	0		0	0	0	0	0		0
13:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
14:00	0	0	0	0		0	0	0	0	0		0
14:15	0	0	0	0		0	0	0	0	1	Cyclist	0
14:30	0	0	0	0		0	0	0	0	0		0
14:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	1		0
15:00	0	0	0	0		0	1	0	0	0		1
15:15	0	0	0	0		0	0	0	0	0		0
15:30	0	0	0	0		0	0	0	0	0		0
15:45	0	0	0	0		0	1	0	0	0		1
1 Hr	0	0	0	0		0	2	0	0	0		2
16:00	0	0	0	0		0	0	0	0	0		0
16:15	0	0	0	0		0	0	0	0	0		0
16:30	0	0	0	0		0	0	0	0	0		0
16:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
17:00	0	0	0	0		0	0	0	0	0		0
17:15	0	0	0	0		0	0	0	0	0		0
17:30	0	0	0	0		0	0	0	0	0		0
17:45	0	0	0	0		0	1	0	0	0		1
1 Hr	0	0	0	0		0	1	0	0	0		1
18:00	0	0	0	0		0	1	0	0	0		1
18:15	0	0	0	0		0	0	0	0	0		0
18:30	0	0	0	0		0	1	0	0	0		1
18:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	2	0	0	0		2
19:00	0	0	0	0		0	0	0	0	0		0
19:15	0	0	0	0		0	0	0	0	0		0
19:30	0	0	0	0		0	0	0	0	0		0
19:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
20:00	0	0	0	0		0	1	0	0	0		1
20:15	0	0	0	0		0	0	0	0	0		0
20:30	0	0	0	0		0	0	0	0	0		0
20:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	1	0	0	0		1
21:00	0	0	0	0		0	0	0	0	0		0
21:15	0	0	0	0		0	0	0	0	0		0
21:30	0	0	0	0		0	0	0	0	0		0
21:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
Total	0	0	0	0		0	12	0	0	1		12

Tracsis plc
Traffic and Data Services

Client: Arup
Project: 3955-MID Bristol Parkway Passenger Drop Off
Site: Short-stay/Drop Off
Date: Tuesday 16 July 2019

Zone 1 - Short-stay Parking

	Entry					
	Car	Motorbike	Taxi	Other	(Specify)	Total
05:30	0	0	0	0		0
05:45	1	0	0	0		1
1 Hr	1	0	0	0		1
06:00	3	0	0	1	LGV	3
06:15	4	0	0	0		4
06:30	6	0	0	1	LGV	6
06:45	2	0	0	0		2
1 Hr	15	0	0	2		15
07:00	4	0	0	1	OGV1	4
07:15	5	0	0	0		5
07:30	4	0	0	0		4
07:45	3	0	0	0		3
1 Hr	16	0	0	1		16
08:00	4	0	0	0		4
08:15	3	0	0	0		3
08:30	7	0	0	0		7
08:45	5	0	0	0		5
1 Hr	19	0	0	0		19
09:00	8	0	0	0		8
09:15	7	0	0	1	LGV	7
09:30	2	0	0	0		2
09:45	8	0	0	0		8
1 Hr	25	0	0	1		25
10:00	6	0	0	0		6
10:15	4	0	0	0		4
10:30	11	0	0	0		11
10:45	5	0	0	0		5
1 Hr	26	0	0	0		26
11:00	5	0	0	0		5
11:15	8	0	0	0		8
11:30	8	0	0	0		8
11:45	6	0	0	0		6
1 Hr	27	0	0	0		27
12:00	5	0	0	0		5
12:15	3	0	0	0		3
12:30	3	0	0	0		3
12:45	9	0	0	0		9
1 Hr	20	0	0	0		20
13:00	3	0	0	0		3
13:15	9	0	0	1	LGV	9
13:30	5	0	0	1	LGV	5
13:45	6	0	0	0		6
1 Hr	23	0	0	2		23
14:00	3	0	0	0		3
14:15	7	0	0	1	LGV	7
14:30	6	0	0	0		6
14:45	7	0	0	0		7
1 Hr	23	0	0	1		23
15:00	6	0	0	0		6
15:15	2	0	0	0		2
15:30	6	0	0	1	LGV	6
15:45	10	0	0	0		10
1 Hr	24	0	0	2		24
16:00	3	0	0	0		3
16:15	9	0	0	0		9
16:30	8	0	0	0		8
16:45	6	0	0	0		6
1 Hr	26	0	0	0		26
17:00	7	0	0	0		7
17:15	5	0	0	1	LGV	5
17:30	5	0	0	0		5
17:45	7	0	0	1	LGV	7
1 Hr	24	0	0	2		24
18:00	9	0	0	0		9
18:15	7	0	0	0		7
18:30	5	0	0	1	LGV	5
18:45	6	0	0	0		6
1 Hr	27	0	0	1		27
19:00	7	0	0	0		7
19:15	1	0	0	0		1
19:30	3	0	0	0		3
19:45	11	0	0	0		11
1 Hr	22	0	0	0		22
20:00	8	0	0	0		8
20:15	7	0	0	0		7
20:30	2	0	0	0		2
20:45	4	0	0	0		4
1 Hr	21	0	0	0		21
21:00	9	0	0	0		9
21:15	1	0	0	0		1
21:30	6	0	0	0		6
21:45	3	0	0	0		3
1 Hr	19	0	0	0		19
Total	358	0	0	12		358

Zone 2 - Drop Off/Pick Up

	Entry						Exit					
	Car	Motorbike	Taxi	Other	(Specify)	Total	Car	Motorbike	Taxi	Other	(Specify)	Total
05:30	2	0	5	0		7	1	0	5	0		6
05:45	5	0	7	0		12	6	0	7	0		13
1 Hr	7	0	12	0		19	7	0	12	0		19
06:00	9	0	14	0		23	8	0	11	0		19
06:15	9	0	6	0		15	9	0	9	0		18
06:30	13	0	13	0		26	14	0	12	0		26
06:45	18	0	15	0		33	15	0	15	0		30
1 Hr	49	0	48	0		97	46	0	47	0		93
07:00	9	0	9	0		18	11	0	9	0		20
07:15	15	0	7	0		22	13	0	7	0		20
07:30	9	0	10	0		19	9	0	10	0		19
07:45	13	0	11	0		24	15	0	10	0		25
1 Hr	46	0	37	0		83	48	0	36	0		84
08:00	14	0	2	0		16	14	0	4	0		18
08:15	12	0	9	0		21	12	0	7	0		19
08:30	14	0	6	0		20	14	0	7	0		21
08:45	14	0	11	0		25	9	0	8	0		17
1 Hr	54	0	28	0		82	49	0	26	0		75
09:00	10	0	12	1	LGV	23	7	0	13	0		20
09:15	7	0	5	1	LGV	13	13	0	7	1	LGV	21
09:30	17	0	5	0		22	12	0	6	1	LGV	19
09:45	12	0	9	0		21	13	0	6	0		19
1 Hr	46	0	31	2		79	45	0	32	2		79
10:00	13	0	13	0		26	18	0	12	0		30
10:15	12	0	8	0		20	12	0	9	0		21
10:30	6	0	6	0		12	5	0	5	0		10
10:45	13	0	11	0		24	12	0	13	0		25
1 Hr	44	0	38	0		82	47	0	39	0		86
11:00	9	0	7	0		16	10	0	5	0		15
11:15	9	0	14	1	LGV	24	11	0	10	0		21
11:30	19	0	3	0		22	16	0	9	0		25
11:45	18	0	3	1	LGV	22	20	0	5	1	LGV	26
1 Hr	55	0	27	2		84	57	0	28	2		87
12:00	15	0	3	1	LGV	19	15	0	3	1	LGV	19
12:15	12	0	8	0		20	11	0	6	0		17
12:30	9	0	7	0		16	11	0	9	0		20
12:45	11	0	11	0		22	8	0	8	0		16
1 Hr	47	0	29	1		77	45	0	26	1		72
13:00	9	0	7	1	LGV	17	10	0	8	0		18
13:15	13	0	4	1	LGV	18	8	0	7	2	LGV	17
13:30	14	0	4	1	LGV	19	19	0	2	1	LGV	22
13:45	10	0	5	0		15	15	0	3	0		18
1 Hr	46	0	20	3		69	48	0	24	3		75
14:00	12	0	3	0		15	11	0	2	0		13
14:15	9	0	1	2	LGV	12	11	0	1	2	LGV	14
14:30	14	0	5	0		19	12	0	6	0		18
14:45	9	0	2	2	LGV	13	8	0	3	2	LGV	13
1 Hr	44	0	11	4		59	42	0	11	4		57
15:00	8	0	9	0		17	10	0	8	0		18
15:15	12	0	11	0		23	12	0	10	0		22
15:30	16	0	5	0		21	17	0	6	0		23
15:45	20	0	14	2	LGV	36	16	0	14	1	LGV	31
1 Hr	56	0	39	2		97	55	0	38	1		94
16:00	13	0	10	1	LGV	24	12	0	10	2	LGV	24
16:15	14	0	16	0		30	19	0	11	0		30
16:30	17	0	10	0		27	17	0	15	0		32
16:45	17	0	9	0		26	15	0	10	0		25
1 Hr	61	0	45	1		107	63	0	46	2		111
17:00	26	0	8	0		34	19	0	6	0		25
17:15	17	0	13	0		30	24	0	15	0		39
17:30	25	0	7	0		32	22	0	5	0		27
17:45	21	0	3	1	LGV	25	14	0	4	1	LGV	19
1 Hr	89	0	31	1		121	84	0	30	1		115
18:00	19	0	3	0		22	21	0	4	0		25
18:15	14	0	4	0		18	11	0	3	0		14
18:30	14	0	8	0	LGV	24	20	0	5	0	LGV	25
18:45	20	0	2	0		22	17	0	3	0		20
1 Hr	67	0	17	2		86	69	0	15	0		89
19:00	20	0	3	0		23	22	0	1	0		23
19:15	11	0	2	0		13	13	0	4	0		17
19:30	14	0	3	0		17	13	0	3	0		16
19:45	11	0	2	0		13	13	0	2	0		15
1 Hr	56	0	10	0		66	61	0	10	0		71
20:00	13	0	3	0		16	20	0	2	0		22
20:15	10	0	3	0		13	9	0	3	0		12
20:30	5	0	0	0		5	20	0	0	0		20
20:45	12	0	0	0		12	12	0	0	0		12
1 Hr	40	0	6	0		46	61	0	5	0		66
21:00	6	0	0	0		6	8	0	0	0		8
21:15	4	0	0	0		4	3	0	0	0		3
21:30	10	0	2	0		12	11	0	1	0		12
21:45	4	0	2	0		6	5	0	3	0		8
1 Hr	24	0	4	0		28	27	0	4	0		31
Total	854	0	438	18		1310	854	0	438	18		1310

Zone 2 - Drop Off/Pick Up

Entry Time	Classification	Drop Off/Pick Up	No. of passengers	Exit time	Dwell Time
05:35:29	Taxi	Drop Off	1	05:36:10	00:00:41
05:41:02	Taxi	Drop Off	1	05:42:44	00:01:42
05:41:23	Taxi	Drop Off	1	05:41:40	00:00:17
05:42:25	Car	Drop Off	1	05:43:12	00:00:47
05:42:40	Taxi	Drop Off	1	05:43:04	00:00:24
05:43:10	Car	Drop Off	1	05:48:18	00:05:08
05:43:55	Taxi	Drop Off	1	05:44:31	00:00:36
05:45:35	Taxi	Drop Off	2	05:46:05	00:00:30
05:48:01	Car	Drop Off	1	05:48:32	00:00:31
05:48:19	Taxi	Drop Off	1	05:49:53	00:01:34
05:48:31	Taxi	Drop Off	1	05:54:18	00:05:47
05:53:19	Car	Drop Off	1	05:55:38	00:02:19
05:53:37	Taxi	Drop Off	1	05:53:58	00:00:21
05:53:43	Car	Drop Off	1	05:54:58	00:01:15
05:54:05	Car	Drop Off	2	05:54:55	00:00:50
05:55:27	Taxi	Drop Off	1	05:58:43	00:03:16
05:57:14	Taxi	Drop Off/Pick Up	1.1	05:58:34	00:01:20
05:57:20	Taxi	Drop Off	1	05:57:47	00:00:27
05:57:53	Car	Drop Off	1	05:58:17	00:00:18
06:00:58	Car	Drop Off	1	06:01:53	00:00:55
06:01:24	Car	Drop Off	1	06:01:43	00:00:19
06:02:01	Car	Drop Off	1	06:03:49	00:01:48
06:02:16	Car	Drop Off	1	06:03:23	00:01:07
06:03:41	Car	No Activity	0	06:03:46	00:00:05
06:04:02	Taxi	Drop Off	1	06:04:42	00:00:40
06:05:20	Taxi	Drop Off	1	06:06:49	00:01:29
06:05:51	Taxi	Drop Off	1	06:06:56	00:01:05
06:06:41	Taxi	Drop Off	1	06:06:41	00:00:18
06:06:23	Taxi	Drop Off	1	06:09:42	00:00:55
06:08:47	Taxi	Drop Off	2	06:19:58	00:10:44
06:10:34	Taxi	Drop Off	1	06:11:00	00:00:26
06:10:39	Taxi	Drop Off	1	06:11:05	00:00:26
06:10:49	Taxi	Drop Off	1	06:11:11	00:00:22
06:10:52	Taxi	Drop Off	1	06:11:18	00:00:26
06:11:09	Car	Drop Off	1	06:12:38	00:01:29
06:11:35	Taxi	Drop Off	1	06:13:02	00:01:47
06:11:31	Car	Drop Off	1	06:12:22	00:00:51
06:11:44	Car	Drop Off	1	06:12:30	00:00:46
06:12:53	Taxi	Drop Off	1	06:14:38	00:00:40
06:14:04	Taxi	Drop Off	1	06:15:19	00:01:15
06:14:40	Taxi	Drop Off	1	06:15:54	00:01:14
06:14:44	Taxi	Drop Off	1	06:15:13	00:00:29
06:15:00	Taxi	Drop Off	1	06:15:33	00:00:33
06:15:13	Taxi	Drop Off	1	06:16:08	00:00:55
06:16:01	Taxi	Drop Off	1	06:18:51	00:02:50
06:16:29	Taxi	Drop Off	1	06:16:49	00:00:27
06:16:32	Taxi	Drop Off	1	06:17:27	00:01:27
06:16:37	Taxi	Drop Off	1	06:20:13	00:00:20
06:16:44	Car	Drop Off	1	06:28:00	00:07:57
06:17:00	Taxi	Drop Off	1	06:21:46	00:04:46
06:17:24	Taxi	Drop Off	1	06:24:12	00:01:53
06:17:31	Taxi	Drop Off	1	06:23:27	00:05:56
06:17:46	Car	Drop Off	1	06:23:08	00:00:38
06:18:37	Taxi	Drop Off	1	06:22:52	00:04:15
06:19:06	Car	Drop Off	1	06:26:50	00:00:42
06:19:11	Taxi	Drop Off	1	06:29:01	00:00:19
06:19:32	Car	Drop Off	1	06:30:18	00:01:31
06:19:39	Taxi	Drop Off	1	06:32:25	00:00:50
06:19:46	Taxi	Drop Off	1	06:19:46	00:00:00
06:19:49	Taxi	Drop Off	1	06:20:42	00:00:53
06:19:50	Taxi	Drop Off	1	06:20:32	00:00:42
06:20:01	Car	Drop Off	1	06:20:44	00:00:43
06:20:02	Taxi	Drop Off	1	06:23:12	00:03:10
06:20:13	Taxi	Drop Off	1	06:24:22	00:04:09
06:20:18	Car	Drop Off	1	06:23:08	00:00:38
06:20:23	Taxi	Drop Off	1	06:22:52	00:02:29
06:20:38	Car	Drop Off	1	06:26:50	00:00:42
06:20:44	Taxi	Drop Off	1	06:21:52	00:01:08
06:20:47	Taxi	Drop Off	1	06:21:52	00:01:05
06:20:49	Taxi	Drop Off	1	06:21:52	00:01:03
06:20:50	Taxi	Drop Off	1	06:21:52	00:01:02
06:20:52	Taxi	Drop Off	1	06:21:52	00:01:00
06:20:54	Taxi	Drop Off	1	06:21:52	00:00:58
06:20:57	Taxi	Drop Off	1	06:21:52	00:00:55
06:21:00	Taxi	Drop Off	1	06:21:52	00:00:52
06:21:02	Taxi	Drop Off	1	06:21:52	00:00:50
06:21:14	Taxi	Drop Off	1	06:22:12	00:00:58
06:21:22	Car	Drop Off	1	06:22:38	00:01:16
06:21:23	Car	Drop Off	1	06:22:38	00:01:15
06:21:38	Car	Drop Off	1	06:22:38	00:01:00
06:21:59	Taxi	Drop Off	1	06:22:38	00:00:39
06:22:11	Car	Drop Off	1	06:22:38	00:00:27
06:22:32	Taxi	Drop Off	1	06:23:08	00:00:36
06:22:38	Car	Drop Off	1	06:23:08	00:00:30
06:22:39	Car	Drop Off	1	06:23:08	00:00:29
06:22:42	Taxi	Drop Off	1	06:23:08	00:00:26
06:22:44	Car	Drop Off	1	06:23:08	00:00:24
06:22:46	Car	Drop Off	1	06:23:08	00:00:22
06:22:47	Taxi	Drop Off	1	06:23:08	00:00:21
06:22:48	Car	Drop Off	1	06:23:08	00:00:20
06:22:50	Taxi	Pick Up	1	06:51:25	00:00:33
06:23:00	Car	Drop Off	1	06:23:22	00:00:22
06:23:08	Car	Drop Off	1	06:23:36	00:00:25
06:23:11	Taxi	Drop Off	1	06:23:56	00:00:45
06:23:13	Car	Drop Off	1	06:23:53	00:00:40
06:23:16	Taxi	Drop Off	1	06:23:36	00:00:20
06:23:17	Car	Drop Off	1	06:23:53	00:00:36
06:23:18	Taxi	Drop Off	1	06:23:36	00:00:18
06:23:20	Taxi	Drop Off	1	06:23:36	00:00:16
06:23:27	Car	Drop Off	1	06:23:53	00:00:26
06:23:28	Taxi	Drop Off	1	06:23:36	00:00:08
06:23:29	Taxi	Drop Off	1	06:23:36	00:00:07
06:23:31	Car	Drop Off	1	06:23:53	00:00:22
06:23:32	Taxi	Drop Off	1	06:23:36	00:00:04
06:23:35	Taxi	Drop Off	1	06:23:53	00:00:18
06:23:37	Taxi	Drop Off	1	06:23:53	00:00:16
06:23:38	Car	Drop Off	1	06:23:53	00:00:15
06:23:39	Car	Drop Off	1	06:23:53	00:00:14
06:23:40	Taxi	Drop Off	1	06:23:53	00:00:13
06:23:41	Car	Drop Off	1	06:23:53	00:00:12
06:23:42	Taxi	Drop Off	1	06:23:53	00:00:11
06:23:44	Taxi	Drop Off	1	06:23:53	00:00:09
06:23:47	Car	Drop Off	1	06:24:08	00:00:21
06:23:48	Taxi	Drop Off	1	06:24:08	00:00:20
06:23:49	Taxi	Drop Off	1	06:24:08	00:00:19
06:23:50	Taxi	Drop Off	1	06:24:08	00:00:18
06:23:51	Taxi	Drop Off	1	06:24:08	00:00:17
06:23:52	Taxi	Drop Off	1	06:24:08	00:00:16
06:23:53	Taxi	Drop Off	1	06:24:08	00:00:15
06:23:54	Car	Drop Off	1	06:24:08	00:00:14
06:23:55	Taxi	Drop Off	1	06:24:08	00:00:13
06:23:56	Taxi	Drop Off	1	06:24:08	00:00:12
06:23:57	Taxi	Drop Off	1	06:24:08	00:00:11
06:23:58	Taxi	Drop Off	1	06:24:08	00:00:10
06:23:59	Taxi	Drop Off	1	06:24:08	00:00:09
06:24:00	Taxi	Drop Off	1	06:24:08	00:00:08
06:24:01	Taxi	Drop Off	1	06:24:08	00:00:07
06:24:02	Taxi	Drop Off	1	06:24:08	00:00:06
06:24:03	Taxi	Drop Off	1	06:24:08	00:00:05
06:24:04	Taxi	Drop Off	1	06:24:08	00:00:04
06:24:05	Taxi	Drop Off	1	06:24:08	00:00:03
06:24:06	Taxi	Drop Off	1	06:24:08	00:00:02
06:24:07	Taxi	Drop Off	1	06:24:08	00:00:01
06:24:08	Taxi	Drop Off	1	06:24:08	00:00:00
06:24:09	Taxi	Drop Off	1	06:24:09	00:00:00
06:24:10	Taxi	Drop Off	1	06:24:10	00:00:00
06:24:11	Taxi	Drop Off	1	06:24:11	00:00:00
06:24:12	Taxi	Drop Off	1	06:24:12	00:00:00
06:24:13	Taxi	Drop Off	1	06:24:13	00:00:00
06:24:14	Taxi	Drop Off	1	06:24:14	00:00:00
06:24:15	Taxi	Drop Off	1	06:24:15	00:00:00
06:24:16	Taxi	Drop Off	1	06:24:16	00:00:00
06:24:17	Taxi	Drop Off	1	06:24:17	00:00:00
06:24:18	Taxi	Drop Off	1	06:24:18	00:00:00
06:24:19	Taxi	Drop Off	1	06:24:19	00:00:00
06:24:20	Taxi	Drop Off	1	06:24:20	00:00:00
06:24:21	Taxi	Drop Off	1	06:24:21	00:00:00
06:24:22	Taxi	Drop Off	1	06:24:22	00:00:00
06:24:23	Taxi	Drop Off	1	06:24:23	00:00:00
06:24:24	Taxi	Drop Off	1	06:24:24	00:00:00
06:24:25	Taxi	Drop Off	1	06:24:25	00:00:00
06:24:26	Taxi	Drop Off	1	06:24:26	00:00:00
06:24:27	Taxi	Drop Off	1	06:24:27	00:00:00
06:24:28	Taxi	Drop Off	1	06:24:28	00:00:00
06:24:29	Taxi	Drop Off	1	06:24:29	00:00:00
06:24:30	Taxi	Drop Off	1	06:24:30	00:00:00
06:24:31	Taxi	Drop Off	1	06:24:31	00:00:00
06:24:32	Taxi	Drop Off	1	06:24:32	00:00:00
06:24:33	Taxi	Drop Off	1	06:24:33	00:00:00
06:24:34	Car	Drop Off	1	06:24:34	00:00:00
06:24:35	Taxi	Drop Off	1	06:24:35	00:00:00
06:24:36	Taxi	Drop Off	1	06:24:36	00:00:00
06:24:37	Taxi	Drop Off	1	06:24:37	00:00:00
06:24:38	Taxi	Drop Off	1	06:24:38	00:00:00
06:24:39	Taxi	Drop Off	1	06:24:39	00:00:00
06:24:40	Taxi	Drop Off	1	06:24:40	00:00:00
06:24:41	Taxi	Drop Off	1	06:24:41	00:00:00
06:24:42	Taxi	Drop Off	1	06:24:42	00:00:00
06:24:43	Taxi	Drop Off	1	06:24:43	00:00:00
06:24:44	Taxi	Drop Off	1	06:24:44	00:00:00
06:24:45	Taxi	Drop Off	1	06:24:45	00:00:00
06:24:46	Taxi	Drop Off	1	06:24:46	00:00:00
06:24:47	Taxi	Drop Off	1	06:24:47	00:00:00
06:24:48	Taxi	Drop Off	1	06:24:48	00:00:00
06:24:49	Taxi	Drop Off	1	06:24:49	00:00:00
06:24:50	Taxi	Drop Off	1	06:24:50	00:00:00
06:24:51	Taxi	Drop Off	1	06:24:51	00:00:00
06:24:52	Taxi	Drop Off	1	06:24:52	00:00:00
06:24:53	Taxi	Drop Off	1	06:24:53	00:00:00
06:24:54	Car	Drop Off	1	06:24:54	00:00:00
06:24:55	Taxi	Drop Off	1	06:24:55	00:00:00
06:24:56	Taxi	Drop Off	1	06:24:56	00:00:00
06:24:57	Taxi	Drop Off	1	06:24:57	00:00:00
06:24:58	Taxi	Drop Off	1	06:24:58	00:00:00
06:24:59	Taxi	Drop Off	1	06:24:59	00:00:00
06:25:00	Taxi	Drop Off	1	06:25:00	00:00:00
06:25:01	Taxi	Drop Off	1	06:25:01	00:00:00
06:25:02	Taxi	Drop Off	1	06:25:02	00:00:00
06:25:03	Taxi	Drop Off	1	06:25:03	00:00:00
06:25:04	Taxi	Drop Off	1	06:25:04	00:00:00
06:25:05	Taxi	Drop Off	1	06:25:05	00:00:00
06:25:06	Taxi	Drop Off	1	06:25:06	00:00:00
06:25:07	Taxi	Drop Off	1	06:25:07	00:00:00
06:25:08	Taxi	Drop Off	1	06:25:08	00:00:00
06:25:09	Taxi	Drop Off	1	06:25:09	00:00:00
06:25:10	Taxi	Drop Off	1	06:25:10	00:00:00
06:25:11	Taxi	Drop Off	1	06:25:11	00:00:00
06:25:12	Taxi	Drop Off	1	06:25:12	00:00:00
06:25:13	Taxi	Drop Off	1	06:25:13	00:00:00
06:25:14	Taxi	Drop Off	1	06:25:14	00:00:00
06:25:15	Taxi	Drop Off	1	06:25:15	00:00:00
06:25:16	Taxi	Drop Off	1	06:25:16	00:00:00
06:25:17	Taxi	Drop Off	1	06:25:17	00:00:00
06:25:18	Taxi	Drop Off	1	06:25:18	00:00:00
06:25:19	Taxi	Drop Off	1	06:25:19	00:00:00
06:25:20	Taxi	Drop Off	1	06:25:20	00:00:00
06:25:21	Taxi	Drop Off	1	06:25:21	00:00:00
06:25:22	Taxi	Drop Off	1	06:25:22	00:00:00
06:25:23	Taxi	Drop Off	1	06:25:23	00:00:00
06:25:24	Taxi	Drop Off	1	06:25:24	00:00:00
06:25:25	Taxi	Drop Off	1	06:25:25	00:00:00
06:25:26	Taxi	Drop Off	1	06:25:26	00:00:00
06:25:27	Taxi	Drop Off	1	06:25:27	00:00:00
06:25:28	Taxi	Drop Off	1	06:25:28	00:00:00
06:25:29	Taxi	Drop Off	1	06:25:29	00:00:00
06:25:30	Taxi	Drop Off	1	06:25:30	00:00:00
06:25:31	Taxi	Drop Off	1	06:25:31	00:00:00
06:25:32	Taxi	Drop Off	1	06:25:32	00:00:00
06

Tracsis plc
Traffic and Data Services

Client: Arup
Project: 3955-MID Bristol Parkway Passenger Drop Off
Site: Surface Car Park
Date: Tuesday 16 July 2019

	Zone 1 - Long Stay Parking											
	Entry						Exit					
	Car	Motorbike	Taxi	Other	(Specify)	Total	Car	Motorbike	Taxi	Other	(Specify)	Total
05:30	2	0	0	0		2	0	0	0	0		0
05:45	2	0	0	0		2	0	0	0	0		0
1 Hr	4	0	0	0		4	0	0	0	0		0
06:00	0	0	0	0		0	1	0	0	1	LGV	1
06:15	4	0	0	0		4	3	0	0	0		3
06:30	6	0	0	0		6	2	0	0	0		2
06:45	13	0	0	0		13	3	0	0	0		3
1 Hr	23	0	0	0		23	9	0	0	1		9
07:00	11	0	0	0		11	2	0	0	0		2
07:15	14	0	0	0		14	3	0	1	0		3
07:30	10	0	0	1	LGV	10	0	0	0	0		0
07:45	8	0	0	0		8	3	0	0	0		3
1 Hr	43	0	0	1		43	8	0	1	0		8
08:00	6	0	0	0		6	1	0	0	0		1
08:15	8	0	0	0		8	4	0	0	1	Cyclist	4
08:30	7	0	0	0		7	1	0	0	0		1
08:45	5	0	0	0		5	6	0	0	0		6
1 Hr	26	0	0	0		26	12	0	0	1		12
09:00	5	0	0	0		5	2	0	0	0		2
09:15	8	0	0	0		8	10	0	1	1	LGV	10
09:30	8	0	0	0		8	9	0	1	1	LGV	9
09:45	3	0	0	2	LGV	3	8	0	0	1	LGV	8
1 Hr	24	0	0	2		24	29	0	2	3		29
10:00	7	0	0	0		7	10	0	0	0		10
10:15	10	0	0	0		10	9	0	0	0		9
10:30	9	0	0	0		9	10	0	0	0		10
10:45	9	0	0	0		9	6	0	0	0		6
1 Hr	35	0	0	0		35	35	0	0	0		35
11:00	8	0	0	0		8	9	0	0	0		9
11:15	5	0	0	0		5	9	0	0	0		9
11:30	7	0	0	0		7	6	0	0	1	LGV	6
11:45	3	0	0	1	LGV	3	5	0	1	1	LGV	5
1 Hr	23	0	0	1		23	29	0	1	2		29
12:00	5	0	0	0		5	5	0	0	0		5
12:15	9	0	0	1	LGV	9	3	0	0	0		3
12:30	7	0	0	0		7	6	0	0	0		6
12:45	5	0	0	0		5	4	0	0	0		4
1 Hr	26	0	0	1		26	18	0	0	0		18
13:00	4	0	0	0		4	8	0	1	0		8
13:15	8	0	0	0		8	5	0	0	0		5
13:30	0	0	0	0		0	6	0	0	0		6
13:45	5	0	0	0		5	8	0	1	0		8
1 Hr	17	0	0	0		17	27	0	2	0		27
14:00	2	0	0	0		2	5	0	0	0		5
14:15	0	0	0	0		0	5	0	0	0		5
14:30	1	0	0	0		1	3	0	1	0		3
14:45	2	0	0	0		2	4	0	0	0		4
1 Hr	5	0	0	0		5	17	0	1	0		17
15:00	1	0	0	0		1	6	0	0	0		6
15:15	0	0	0	0		0	3	0	0	0		3
15:30	2	0	0	0		2	4	0	0	0		4
15:45	2	0	0	0		2	1	0	0	0		1
1 Hr	5	0	0	0		5	14	0	0	0		14
16:00	7	0	0	4	Cyclist	7	6	0	0	0		6
16:15	4	0	0	0		4	9	0	0	1	LGV	9
16:30	6	0	0	0		6	19	0	0	0		19
16:45	1	0	0	0		1	2	0	0	0		2
1 Hr	18	0	0	4		18	36	0	0	1		36
17:00	2	0	0	0		2	6	0	0	0		6
17:15	6	0	0	0		6	13	0	2	0		13
17:30	1	0	0	0		1	21	0	0	0		21
17:45	1	0	0	0		1	4	0	0	0		4
1 Hr	10	0	0	0		10	44	0	2	0		44
18:00	6	0	0	0		6	27	0	0	0		27
18:15	6	0	0	0		6	7	0	0	0		7
18:30	1	0	0	1	LGV	1	16	0	0	0		16
18:45	1	0	0	0		1	4	0	0	1	LGV	4
1 Hr	14	0	0	1		14	54	0	0	1		54
19:00	4	0	0	0		4	4	0	0	0		4
19:15	3	0	0	0		3	7	0	1	0		7
19:30	2	0	0	0		2	2	0	0	0		2
19:45	4	0	0	0		4	6	0	1	0		6
1 Hr	13	0	0	0		13	19	0	2	0		19
20:00	9	0	0	0		9	18	0	1	1	Cyclist	18
20:15	2	0	0	0		2	0	0	0	0		0
20:30	2	0	0	0		2	10	0	0	1	LGV	10
20:45	2	0	0	0		2	1	0	0	0		1
1 Hr	15	0	0	0		15	29	0	1	2		29
21:00	2	0	0	0		2	8	0	0	0		8
21:15	1	0	0	0		1	2	0	0	0		2
21:30	1	0	0	0		1	5	0	0	0		5
21:45	1	0	0	0		1	3	0	0	0		3
1 Hr	5	0	0	0		5	18	0	0	0		18
Total	306	0	0	10		306	398	0	12	11		398

	Zone 1 - Long Stay Parking						Zone 1 - Long Stay Parking					
	Entry via Exit						Exit Via Entry					
	Car	Motorbike	Taxi	Other	(Specify)	Total	Car	Motorbike	Taxi	Other	(Specify)	Total
05:30	0	0	0	0		0	0	0	0	0		0
05:45	1	0	0	0		1	0	0	0	0		0
1 Hr	1	0	0	0		1	0	0	0	0		0
06:00	0	0	0	0		0	0	0	0	0		0
06:15	0	0	0	0		0	0	0	0	0		0
06:30	0	0	0	0		0	0	0	0	0		0
06:45	1	0	0	0		1	0	0	0	0		0
1 Hr	1	0	0	0		1	0	0	0	0		0
07:00	0	0	0	0		0	0	0	0	0		0
07:15	3	0	0	0		3	0	0	0	0		0
07:30	1	0	0	0		1	0	0	0	0		0
07:45	0	0	0	0		0	0	0	0	0		0
1 Hr	4	0	0	0		4	0	0	0	0		0
08:00	0	0	0	0		0	0	0	0	0		0
08:15	1	0	0	0		1	0	0	0	0		0
08:30	0	0	0	0		0	0	0	0	0		0
08:45	0	0	0	0		0	0	0	0	0		0
1 Hr	1	0	0	0		1	0	0	0	0		0
09:00	0	0	0	0		0	0	0	0	0		0
09:15	0	0	0	0		0	0	0	0	0		0
09:30	0	0	0	0		0	0	0	0	0		0
09:45	1	0	0	0		1	0	0	0	0		0
1 Hr	1	0	0	0		1	0	0	0	0		0
10:00	0	0	0	0		0	0	0	0	0		0
10:15	0	0	0	0		0	0	0	0	0		0
10:30	0	0	0	0		0	0	0	0	0		0
10:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
11:00	0	0	0	0		0	0	0	0	0		0
11:15	0	0	0	0		0	0	0	0	0		0
11:30	0	0	0	0		0	0	0	0	0		0
11:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
12:00	0	0	0	0		0	0	0	0	0		0
12:15	0	0	0	0		0	0	0	0	0		0
12:30	0	0	0	0		0	0	0	0	0		0
12:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
13:00	0	0	0	0		0	0	0	0	0		0
13:15	0	0	0	0		0	0	0	0	0		0
13:30	0	0	0	0		0	0	0	0	0		0
13:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
14:00	0	0	0	0		0	0	0	0	0		0
14:15	0	0	0	0		0	0	0	0	0		0
14:30	0	0	0	0		0	0	0	0	0		0
14:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
15:00	0	0	0	0		0	0	0	0	0		0
15:15	0	0	0	0		0	0	0	0	0		0
15:30	0	0	0	0		0	0	0	0	0		0
15:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
16:00	0	0	0	0		0	0	0	0	0		0
16:15	0	0	0	0		0	0	0	0	0		0
16:30	0	0	0	0		0	0	0	0	0		0
16:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
17:00	0	0	0	0		0	0	0	0	0		0
17:15	0	0	0	0		0	0	0	0	0		0
17:30	0	0	0	0		0	0	0	0	0		0
17:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
18:00	0	0	0	0		0	0	0	0	0		0
18:15	0	0	0	0		0	0	0	0	0		0
18:30	0	0	0	0		0	0	0	0	0		0
18:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
19:00	0	0	0	0		0	0	0	0	0		0
19:15	0	0	0	0		0	0	0	0	0		0
19:30	0	0	0	0		0	0	0	0	0		0
19:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
20:00	0	0	0	0		0	0	0	0	0		0
20:15	0	0	0	0		0	0	0	0	0		0
20:30	0	0	0	0		0	0	0	0	0		0
20:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
21:00	0	0	0	0		0	0	0	0	0		0
21:15	0	0	0	0		0	0	0	0	0		0
21:30	0	0	0	0		0	0	0	0	0		0
21:45	0	0	0	0		0	0	0	0	0		0
1 Hr	0	0	0	0		0	0	0	0	0		0
Total	8	0	0	0		8	0	0	0	0		0

Tracsis plc
Traffic and Data Services

Client: Arup
Project: 3955-MID Bristol Parkway Passenger Drop Off
Site: Taxi Rank
Date: Tuesday 16 July 2019

	Zone 1 - Pick-up ONLY			
	Entry			
	Taxi	Other	(Specify)	Total
05:30	0	1	Car	1
05:45	0	0		0
1 Hr	0	1		1
06:00	0	0		0
06:15	1	0		1
06:30	0	0		0
06:45	2	0		2
1 Hr	3	0		3
07:00	4	0		4
07:15	2	0		2
07:30	1	0		1
07:45	3	0		3
1 Hr	10	0		10
08:00	11	0		11
08:15	3	0		3
08:30	12	0		12
08:45	4	0		4
1 Hr	30	0		30
09:00	5	0		5
09:15	17	0		17
09:30	6	0		6
09:45	7	0		7
1 Hr	35	0		35
10:00	14	0		14
10:15	8	0		8
10:30	9	0		9
10:45	3	0		3
1 Hr	34	0		34
11:00	6	0		6
11:15	6	0		6
11:30	20	0		20
11:45	19	0		19
1 Hr	51	0		51
12:00	7	0		7
12:15	7	0		7
12:30	6	0		6
12:45	1	0		1
1 Hr	21	0		21
13:00	6	0		6
13:15	3	0		3
13:30	14	0		14
13:45	2	0		2
1 Hr	25	0		25
14:00	4	0		4
14:15	3	0		3
14:30	4	0		4
14:45	9	0		9
1 Hr	20	0		20
15:00	5	0		5
15:15	1	0		1
15:30	5	0		5
15:45	9	0		9
1 Hr	20	0		20
16:00	7	0		7
16:15	4	0		4
16:30	9	0		9
16:45	6	0		6
1 Hr	26	0		26
17:00	9	0		9
17:15	13	0		13
17:30	6	0		6
17:45	6	0		6
1 Hr	34	0		34
18:00	8	0		8
18:15	1	0		1
18:30	11	0		11
18:45	4	0		4
1 Hr	24	0		24
19:00	2	0		2
19:15	7	0		7
19:30	6	0		6
19:45	2	0		2
1 Hr	17	0		17
20:00	16	0		16
20:15	1	0		1
20:30	15	0		15
20:45	2	0		2
1 Hr	34	0		34
21:00	7	0		7
21:15	1	0		1
21:30	12	0		12
21:45	1	0		1
1 Hr	21	0		21
Total	405	1		406

Appendix K

TRICS Outputs

Calculation Reference: AUDIT-701009-200217-0225

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
	SC	SURREY	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	WK	WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	3 days
	MS	MERSEYSIDE	1 days
10	WALES		
	SW	SWANSEA	1 days
11	SCOTLAND		
	DU	DUNDEE CITY	1 days

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

Secondary Filtering selection:

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

Parameter: Number of Employees
Actual Range: 100 to 1221 (units:)
Range Selected by User: 100 to 9500 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 13/11/18

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	3 days
Tuesday	4 days
Wednesday	1 days
Thursday	3 days
Friday	3 days

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

Selected survey types:

Manual count	14 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	4
Edge of Town Centre	7
Suburban Area (PPS6 Out of Centre)	1
Edge of Town	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
Development Zone	2
Residential Zone	2

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	14 days

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

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	7 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	6 days
250,001 to 500,000	3 days
500,001 or More	4 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	10 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:

Yes	3 days
No	11 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	14 days

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

LIST OF SITES relevant to selection parameters

1 BD-02-A-03 OFFICES BEDFORDSHIRE
BROMHAM ROAD
BEDFORD

Edge of Town Centre
No Sub Category
Total Number of Employees: 240
Survey date: MONDAY *14/10/13* *Survey Type: MANUAL*

2 BR-02-A-02 PLANNING & ENGINEERING BRISTOL CITY
ST THOMAS STREET
BRISTOL

Town Centre
Built-Up Zone
Total Number of Employees: 224
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

3 DU-02-A-01 OFFICES DUNDEE CITY
GREENMARKET
DUNDEE

Edge of Town Centre
Development Zone
Total Number of Employees: 146
Survey date: THURSDAY *27/04/17* *Survey Type: MANUAL*

4 GM-02-A-07 LAW OFFICES GREATER MANCHESTER
MOSELEY STREET
MANCHESTER

Town Centre
Built-Up Zone
Total Number of Employees: 252
Survey date: WEDNESDAY *19/10/11* *Survey Type: MANUAL*

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

Town Centre
Built-Up Zone
Total Number of Employees: 284
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

6 GM-02-A-09 LEASED OFFICES GREATER MANCHESTER
NEW MOUNT STREET
MANCHESTER

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 670
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

7 HF-02-A-04 OFFICES HERTFORDSHIRE
STATION WAY
ST ALBANS

Edge of Town Centre
Residential Zone
Total Number of Employees: 365
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

8 MS-02-A-02 SCIENCE PARK OFFICES MERSEYSIDE
MOUNT PLEASANT
LIVERPOOL

Edge of Town
Built-Up Zone
Total Number of Employees: 400
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 NF-02-A-03 OFFICES NORFOLK
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 380
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

10 SC-02-A-17 PHARMACEUTICALS SURREY
ST GEORGE'S AVENUE
WEYBRIDGE
THE HEATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 345
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

11 SF-02-A-02 OFFICES SUFFOLK
BATH STREET
IPSWICH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 218
Survey date: FRIDAY *19/07/13* *Survey Type: MANUAL*

12 SW-02-A-01 OFFICES SWANSEA
LANGDON ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Number of Employees: 1221
Survey date: FRIDAY *25/10/13* *Survey Type: MANUAL*

13 WK-02-A-01 OFFICES WARWICKSHIRE
WARWICK ROAD
COVENTRY

Town Centre
Built-Up Zone
Total Number of Employees: 100
Survey date: THURSDAY *17/10/13* *Survey Type: MANUAL*

14 WY-02-A-05 OFFICES WEST YORKSHIRE
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Number of Employees: 115
Survey date: TUESDAY *23/05/17* *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
CO-02-A-01	Public Sector
DC-02-A-09	Public Sector
DH-02-A-02	Construction company
ES-02-A-12	Public Sector
EX-02-A-03	Public Sector
HC-02-A-11	Conference center
KC-02-A-07	Public Sector
KC-02-A-08	Public Sector
KC-02-A-09	Public Sector
KC-02-A-10	Public Sector
KC-02-A-11	Public Sector
LC-02-A-09	Public Sector
PS-02-A-01	Public Sector
SC-02-A-16	Data Park
SO-02-A-01	Public Sector
SW-02-A-02	Employee (density) figures do not appear to be correct
TV-02-A-04	Public Sector
TW-02-A-08	Public Sector

Trip Rates for Key Periods		Trips per 1 employ EMPLOY	
Period	Inbound	Outbound	Total
0800-0900	0.292	0.027	0.319
1700-1800	0.027	0.279	0.306
1630-1730	0.037	0.258	0.295

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL VEHICLES
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.015	14	354	0.002	14	354	0.017
07:30 - 08:00	14	354	0.071	14	354	0.013	14	354	0.084
08:00 - 08:30	14	354	0.069	14	354	0.013	14	354	0.082
08:30 - 09:00	14	354	0.081	14	354	0.015	14	354	0.096
09:00 - 09:30	14	354	0.053	14	354	0.010	14	354	0.063
09:30 - 10:00	14	354	0.030	14	354	0.009	14	354	0.039
10:00 - 10:30	14	354	0.016	14	354	0.009	14	354	0.025
10:30 - 11:00	14	354	0.014	14	354	0.009	14	354	0.023
11:00 - 11:30	14	354	0.009	14	354	0.006	14	354	0.015
11:30 - 12:00	14	354	0.012	14	354	0.010	14	354	0.022
12:00 - 12:30	14	354	0.009	14	354	0.016	14	354	0.025
12:30 - 13:00	14	354	0.014	14	354	0.017	14	354	0.031
13:00 - 13:30	14	354	0.017	14	354	0.011	14	354	0.028
13:30 - 14:00	14	354	0.015	14	354	0.013	14	354	0.028
14:00 - 14:30	14	354	0.012	14	354	0.011	14	354	0.023
14:30 - 15:00	14	354	0.007	14	354	0.013	14	354	0.020
15:00 - 15:30	14	354	0.010	14	354	0.012	14	354	0.022
15:30 - 16:00	14	354	0.008	14	354	0.017	14	354	0.025
16:00 - 16:30	14	354	0.008	14	354	0.035	14	354	0.043
16:30 - 17:00	14	354	0.011	14	354	0.046	14	354	0.057
17:00 - 17:30	14	354	0.010	14	354	0.080	14	354	0.090
17:30 - 18:00	14	354	0.006	14	354	0.041	14	354	0.047
18:00 - 18:30	13	373	0.003	13	373	0.045	13	373	0.048
18:30 - 19:00	13	373	0.001	13	373	0.013	13	373	0.014
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:			0.501			0.466			0.967

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.*

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Parameter summary

Trip rate parameter range selected:	100 - 1221 (units:)
Survey date date range:	01/01/11 - 13/11/18
Number of weekdays (Monday-Friday):	14
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	18

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TAXIS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.000	14	354	0.000	14	354	0.000
07:30 - 08:00	14	354	0.001	14	354	0.001	14	354	0.002
08:00 - 08:30	14	354	0.001	14	354	0.001	14	354	0.002
08:30 - 09:00	14	354	0.003	14	354	0.002	14	354	0.005
09:00 - 09:30	14	354	0.001	14	354	0.001	14	354	0.002
09:30 - 10:00	14	354	0.001	14	354	0.001	14	354	0.002
10:00 - 10:30	14	354	0.000	14	354	0.000	14	354	0.000
10:30 - 11:00	14	354	0.000	14	354	0.000	14	354	0.000
11:00 - 11:30	14	354	0.000	14	354	0.000	14	354	0.000
11:30 - 12:00	14	354	0.000	14	354	0.000	14	354	0.000
12:00 - 12:30	14	354	0.000	14	354	0.000	14	354	0.000
12:30 - 13:00	14	354	0.000	14	354	0.000	14	354	0.000
13:00 - 13:30	14	354	0.001	14	354	0.001	14	354	0.002
13:30 - 14:00	14	354	0.000	14	354	0.000	14	354	0.000
14:00 - 14:30	14	354	0.000	14	354	0.000	14	354	0.000
14:30 - 15:00	14	354	0.000	14	354	0.000	14	354	0.000
15:00 - 15:30	14	354	0.000	14	354	0.000	14	354	0.000
15:30 - 16:00	14	354	0.001	14	354	0.001	14	354	0.002
16:00 - 16:30	14	354	0.000	14	354	0.000	14	354	0.000
16:30 - 17:00	14	354	0.000	14	354	0.000	14	354	0.000
17:00 - 17:30	14	354	0.002	14	354	0.002	14	354	0.004
17:30 - 18:00	14	354	0.001	14	354	0.001	14	354	0.002
18:00 - 18:30	13	373	0.000	13	373	0.000	13	373	0.000
18:30 - 19:00	13	373	0.000	13	373	0.000	13	373	0.000
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:			0.012			0.011			0.023

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL OGVS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.000	14	354	0.000	14	354	0.000
07:30 - 08:00	14	354	0.000	14	354	0.000	14	354	0.000
08:00 - 08:30	14	354	0.000	14	354	0.000	14	354	0.000
08:30 - 09:00	14	354	0.000	14	354	0.000	14	354	0.000
09:00 - 09:30	14	354	0.000	14	354	0.000	14	354	0.000
09:30 - 10:00	14	354	0.000	14	354	0.000	14	354	0.000
10:00 - 10:30	14	354	0.000	14	354	0.000	14	354	0.000
10:30 - 11:00	14	354	0.000	14	354	0.000	14	354	0.000
11:00 - 11:30	14	354	0.000	14	354	0.000	14	354	0.000
11:30 - 12:00	14	354	0.000	14	354	0.000	14	354	0.000
12:00 - 12:30	14	354	0.000	14	354	0.000	14	354	0.000
12:30 - 13:00	14	354	0.000	14	354	0.000	14	354	0.000
13:00 - 13:30	14	354	0.000	14	354	0.000	14	354	0.000
13:30 - 14:00	14	354	0.000	14	354	0.000	14	354	0.000
14:00 - 14:30	14	354	0.000	14	354	0.000	14	354	0.000
14:30 - 15:00	14	354	0.000	14	354	0.000	14	354	0.000
15:00 - 15:30	14	354	0.000	14	354	0.000	14	354	0.000
15:30 - 16:00	14	354	0.000	14	354	0.000	14	354	0.000
16:00 - 16:30	14	354	0.000	14	354	0.000	14	354	0.000
16:30 - 17:00	14	354	0.000	14	354	0.000	14	354	0.000
17:00 - 17:30	14	354	0.000	14	354	0.000	14	354	0.000
17:30 - 18:00	14	354	0.000	14	354	0.000	14	354	0.000
18:00 - 18:30	13	373	0.000	13	373	0.000	13	373	0.000
18:30 - 19:00	13	373	0.000	13	373	0.000	13	373	0.000
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:			0.000			0.000			0.000

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PSVS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.000	14	354	0.000	14	354	0.000
07:30 - 08:00	14	354	0.000	14	354	0.000	14	354	0.000
08:00 - 08:30	14	354	0.000	14	354	0.000	14	354	0.000
08:30 - 09:00	14	354	0.000	14	354	0.000	14	354	0.000
09:00 - 09:30	14	354	0.000	14	354	0.000	14	354	0.000
09:30 - 10:00	14	354	0.000	14	354	0.000	14	354	0.000
10:00 - 10:30	14	354	0.000	14	354	0.000	14	354	0.000
10:30 - 11:00	14	354	0.000	14	354	0.000	14	354	0.000
11:00 - 11:30	14	354	0.000	14	354	0.000	14	354	0.000
11:30 - 12:00	14	354	0.000	14	354	0.000	14	354	0.000
12:00 - 12:30	14	354	0.000	14	354	0.000	14	354	0.000
12:30 - 13:00	14	354	0.000	14	354	0.000	14	354	0.000
13:00 - 13:30	14	354	0.000	14	354	0.000	14	354	0.000
13:30 - 14:00	14	354	0.000	14	354	0.000	14	354	0.000
14:00 - 14:30	14	354	0.000	14	354	0.000	14	354	0.000
14:30 - 15:00	14	354	0.000	14	354	0.000	14	354	0.000
15:00 - 15:30	14	354	0.000	14	354	0.000	14	354	0.000
15:30 - 16:00	14	354	0.000	14	354	0.000	14	354	0.000
16:00 - 16:30	14	354	0.000	14	354	0.000	14	354	0.000
16:30 - 17:00	14	354	0.000	14	354	0.000	14	354	0.000
17:00 - 17:30	14	354	0.000	14	354	0.000	14	354	0.000
17:30 - 18:00	14	354	0.000	14	354	0.000	14	354	0.000
18:00 - 18:30	13	373	0.000	13	373	0.000	13	373	0.000
18:30 - 19:00	13	373	0.000	13	373	0.000	13	373	0.000
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:			0.000			0.000			0.000

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL CYCLISTS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.000	14	354	0.000	14	354	0.000
07:30 - 08:00	14	354	0.002	14	354	0.000	14	354	0.002
08:00 - 08:30	14	354	0.003	14	354	0.000	14	354	0.003
08:30 - 09:00	14	354	0.009	14	354	0.000	14	354	0.009
09:00 - 09:30	14	354	0.004	14	354	0.000	14	354	0.004
09:30 - 10:00	14	354	0.001	14	354	0.000	14	354	0.001
10:00 - 10:30	14	354	0.002	14	354	0.000	14	354	0.002
10:30 - 11:00	14	354	0.001	14	354	0.001	14	354	0.002
11:00 - 11:30	14	354	0.001	14	354	0.001	14	354	0.002
11:30 - 12:00	14	354	0.001	14	354	0.000	14	354	0.001
12:00 - 12:30	14	354	0.000	14	354	0.000	14	354	0.000
12:30 - 13:00	14	354	0.001	14	354	0.001	14	354	0.002
13:00 - 13:30	14	354	0.001	14	354	0.001	14	354	0.002
13:30 - 14:00	14	354	0.000	14	354	0.001	14	354	0.001
14:00 - 14:30	14	354	0.000	14	354	0.001	14	354	0.001
14:30 - 15:00	14	354	0.000	14	354	0.000	14	354	0.000
15:00 - 15:30	14	354	0.000	14	354	0.000	14	354	0.000
15:30 - 16:00	14	354	0.000	14	354	0.002	14	354	0.002
16:00 - 16:30	14	354	0.000	14	354	0.002	14	354	0.002
16:30 - 17:00	14	354	0.000	14	354	0.001	14	354	0.001
17:00 - 17:30	14	354	0.000	14	354	0.005	14	354	0.005
17:30 - 18:00	14	354	0.000	14	354	0.007	14	354	0.007
18:00 - 18:30	13	373	0.000	13	373	0.004	13	373	0.004
18:30 - 19:00	13	373	0.000	13	373	0.001	13	373	0.001
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:			0.026			0.028			0.054

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.016	14	354	0.002	14	354	0.018
07:30 - 08:00	14	354	0.079	14	354	0.004	14	354	0.083
08:00 - 08:30	14	354	0.078	14	354	0.008	14	354	0.086
08:30 - 09:00	14	354	0.091	14	354	0.011	14	354	0.102
09:00 - 09:30	14	354	0.063	14	354	0.010	14	354	0.072
09:30 - 10:00	14	354	0.034	14	354	0.008	14	354	0.042
10:00 - 10:30	14	354	0.018	14	354	0.010	14	354	0.028
10:30 - 11:00	14	354	0.015	14	354	0.010	14	354	0.025
11:00 - 11:30	14	354	0.010	14	354	0.005	14	354	0.015
11:30 - 12:00	14	354	0.015	14	354	0.011	14	354	0.026
12:00 - 12:30	14	354	0.010	14	354	0.020	14	354	0.030
12:30 - 13:00	14	354	0.016	14	354	0.020	14	354	0.036
13:00 - 13:30	14	354	0.019	14	354	0.014	14	354	0.033
13:30 - 14:00	14	354	0.019	14	354	0.016	14	354	0.035
14:00 - 14:30	14	354	0.015	14	354	0.012	14	354	0.027
14:30 - 15:00	14	354	0.008	14	354	0.015	14	354	0.023
15:00 - 15:30	14	354	0.011	14	354	0.015	14	354	0.026
15:30 - 16:00	14	354	0.008	14	354	0.023	14	354	0.031
16:00 - 16:30	14	354	0.009	14	354	0.043	14	354	0.052
16:30 - 17:00	14	354	0.013	14	354	0.053	14	354	0.066
17:00 - 17:30	14	354	0.010	14	354	0.100	14	354	0.110
17:30 - 18:00	14	354	0.006	14	354	0.048	14	354	0.054
18:00 - 18:30	13	373	0.003	13	373	0.057	13	373	0.060
18:30 - 19:00	13	373	0.001	13	373	0.015	13	373	0.016
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:			0.566			0.530			1.096

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.003	14	354	0.001	14	354	0.004
07:30 - 08:00	14	354	0.014	14	354	0.001	14	354	0.015
08:00 - 08:30	14	354	0.015	14	354	0.001	14	354	0.016
08:30 - 09:00	14	354	0.030	14	354	0.003	14	354	0.033
09:00 - 09:30	14	354	0.026	14	354	0.006	14	354	0.032
09:30 - 10:00	14	354	0.018	14	354	0.008	14	354	0.026
10:00 - 10:30	14	354	0.014	14	354	0.013	14	354	0.027
10:30 - 11:00	14	354	0.016	14	354	0.013	14	354	0.029
11:00 - 11:30	14	354	0.011	14	354	0.015	14	354	0.026
11:30 - 12:00	14	354	0.009	14	354	0.015	14	354	0.024
12:00 - 12:30	14	354	0.032	14	354	0.052	14	354	0.084
12:30 - 13:00	14	354	0.040	14	354	0.068	14	354	0.108
13:00 - 13:30	14	354	0.053	14	354	0.057	14	354	0.110
13:30 - 14:00	14	354	0.063	14	354	0.029	14	354	0.091
14:00 - 14:30	14	354	0.039	14	354	0.023	14	354	0.062
14:30 - 15:00	14	354	0.022	14	354	0.018	14	354	0.040
15:00 - 15:30	14	354	0.014	14	354	0.014	14	354	0.028
15:30 - 16:00	14	354	0.013	14	354	0.011	14	354	0.024
16:00 - 16:30	14	354	0.007	14	354	0.010	14	354	0.017
16:30 - 17:00	14	354	0.003	14	354	0.012	14	354	0.015
17:00 - 17:30	14	354	0.006	14	354	0.030	14	354	0.036
17:30 - 18:00	14	354	0.003	14	354	0.027	14	354	0.030
18:00 - 18:30	13	373	0.001	13	373	0.018	13	373	0.019
18:30 - 19:00	13	373	0.001	13	373	0.003	13	373	0.004
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:			0.452			0.448			0.900

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.003	14	354	0.000	14	354	0.003
07:30 - 08:00	14	354	0.008	14	354	0.000	14	354	0.008
08:00 - 08:30	14	354	0.012	14	354	0.000	14	354	0.012
08:30 - 09:00	14	354	0.022	14	354	0.001	14	354	0.023
09:00 - 09:30	14	354	0.018	14	354	0.001	14	354	0.019
09:30 - 10:00	14	354	0.010	14	354	0.002	14	354	0.012
10:00 - 10:30	14	354	0.006	14	354	0.001	14	354	0.007
10:30 - 11:00	14	354	0.004	14	354	0.002	14	354	0.006
11:00 - 11:30	14	354	0.003	14	354	0.003	14	354	0.006
11:30 - 12:00	14	354	0.003	14	354	0.002	14	354	0.005
12:00 - 12:30	14	354	0.002	14	354	0.006	14	354	0.008
12:30 - 13:00	14	354	0.004	14	354	0.010	14	354	0.014
13:00 - 13:30	14	354	0.005	14	354	0.009	14	354	0.014
13:30 - 14:00	14	354	0.005	14	354	0.004	14	354	0.009
14:00 - 14:30	14	354	0.002	14	354	0.003	14	354	0.005
14:30 - 15:00	14	354	0.002	14	354	0.003	14	354	0.005
15:00 - 15:30	14	354	0.002	14	354	0.004	14	354	0.006
15:30 - 16:00	14	354	0.003	14	354	0.004	14	354	0.007
16:00 - 16:30	14	354	0.002	14	354	0.009	14	354	0.011
16:30 - 17:00	14	354	0.002	14	354	0.010	14	354	0.012
17:00 - 17:30	14	354	0.000	14	354	0.020	14	354	0.020
17:30 - 18:00	14	354	0.000	14	354	0.013	14	354	0.013
18:00 - 18:30	13	373	0.000	13	373	0.008	13	373	0.008
18:30 - 19:00	13	373	0.000	13	373	0.002	13	373	0.002
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:			0.118			0.117			0.235

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.002	14	354	0.000	14	354	0.002
07:30 - 08:00	14	354	0.005	14	354	0.000	14	354	0.005
08:00 - 08:30	14	354	0.011	14	354	0.001	14	354	0.012
08:30 - 09:00	14	354	0.022	14	354	0.000	14	354	0.022
09:00 - 09:30	14	354	0.016	14	354	0.001	14	354	0.017
09:30 - 10:00	14	354	0.005	14	354	0.001	14	354	0.006
10:00 - 10:30	14	354	0.001	14	354	0.001	14	354	0.002
10:30 - 11:00	14	354	0.001	14	354	0.002	14	354	0.003
11:00 - 11:30	14	354	0.002	14	354	0.001	14	354	0.003
11:30 - 12:00	14	354	0.002	14	354	0.001	14	354	0.003
12:00 - 12:30	14	354	0.002	14	354	0.002	14	354	0.004
12:30 - 13:00	14	354	0.002	14	354	0.005	14	354	0.007
13:00 - 13:30	14	354	0.003	14	354	0.004	14	354	0.007
13:30 - 14:00	14	354	0.003	14	354	0.003	14	354	0.006
14:00 - 14:30	14	354	0.002	14	354	0.001	14	354	0.003
14:30 - 15:00	14	354	0.002	14	354	0.003	14	354	0.005
15:00 - 15:30	14	354	0.001	14	354	0.003	14	354	0.004
15:30 - 16:00	14	354	0.002	14	354	0.004	14	354	0.006
16:00 - 16:30	14	354	0.001	14	354	0.005	14	354	0.006
16:30 - 17:00	14	354	0.001	14	354	0.010	14	354	0.011
17:00 - 17:30	14	354	0.002	14	354	0.018	14	354	0.020
17:30 - 18:00	14	354	0.000	14	354	0.013	14	354	0.013
18:00 - 18:30	13	373	0.001	13	373	0.008	13	373	0.009
18:30 - 19:00	13	373	0.000	13	373	0.003	13	373	0.003
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:			0.089			0.090			0.179

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL COACH PASSENGERS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.000	14	354	0.000	14	354	0.000
07:30 - 08:00	14	354	0.000	14	354	0.000	14	354	0.000
08:00 - 08:30	14	354	0.000	14	354	0.000	14	354	0.000
08:30 - 09:00	14	354	0.000	14	354	0.000	14	354	0.000
09:00 - 09:30	14	354	0.000	14	354	0.000	14	354	0.000
09:30 - 10:00	14	354	0.000	14	354	0.000	14	354	0.000
10:00 - 10:30	14	354	0.000	14	354	0.000	14	354	0.000
10:30 - 11:00	14	354	0.000	14	354	0.000	14	354	0.000
11:00 - 11:30	14	354	0.000	14	354	0.003	14	354	0.003
11:30 - 12:00	14	354	0.000	14	354	0.000	14	354	0.000
12:00 - 12:30	14	354	0.000	14	354	0.000	14	354	0.000
12:30 - 13:00	14	354	0.000	14	354	0.000	14	354	0.000
13:00 - 13:30	14	354	0.000	14	354	0.000	14	354	0.000
13:30 - 14:00	14	354	0.000	14	354	0.000	14	354	0.000
14:00 - 14:30	14	354	0.000	14	354	0.000	14	354	0.000
14:30 - 15:00	14	354	0.000	14	354	0.000	14	354	0.000
15:00 - 15:30	14	354	0.000	14	354	0.000	14	354	0.000
15:30 - 16:00	14	354	0.000	14	354	0.000	14	354	0.000
16:00 - 16:30	14	354	0.000	14	354	0.000	14	354	0.000
16:30 - 17:00	14	354	0.000	14	354	0.000	14	354	0.000
17:00 - 17:30	14	354	0.000	14	354	0.000	14	354	0.000
17:30 - 18:00	14	354	0.000	14	354	0.000	14	354	0.000
18:00 - 18:30	13	373	0.000	13	373	0.000	13	373	0.000
18:30 - 19:00	13	373	0.000	13	373	0.000	13	373	0.000
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:			0.000			0.003			0.003

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	14	354	0.005	14	354	0.000	14	354	0.005
07:30 - 08:00	14	354	0.013	14	354	0.000	14	354	0.013
08:00 - 08:30	14	354	0.023	14	354	0.001	14	354	0.024
08:30 - 09:00	14	354	0.044	14	354	0.001	14	354	0.045
09:00 - 09:30	14	354	0.033	14	354	0.002	14	354	0.035
09:30 - 10:00	14	354	0.015	14	354	0.003	14	354	0.018
10:00 - 10:30	14	354	0.008	14	354	0.002	14	354	0.010
10:30 - 11:00	14	354	0.005	14	354	0.004	14	354	0.009
11:00 - 11:30	14	354	0.004	14	354	0.006	14	354	0.010
11:30 - 12:00	14	354	0.004	14	354	0.003	14	354	0.007
12:00 - 12:30	14	354	0.004	14	354	0.008	14	354	0.012
12:30 - 13:00	14	354	0.007	14	354	0.015	14	354	0.022
13:00 - 13:30	14	354	0.008	14	354	0.013	14	354	0.021
13:30 - 14:00	14	354	0.008	14	354	0.007	14	354	0.015
14:00 - 14:30	14	354	0.004	14	354	0.004	14	354	0.008
14:30 - 15:00	14	354	0.004	14	354	0.006	14	354	0.010
15:00 - 15:30	14	354	0.003	14	354	0.007	14	354	0.010
15:30 - 16:00	14	354	0.005	14	354	0.008	14	354	0.013
16:00 - 16:30	14	354	0.003	14	354	0.014	14	354	0.017
16:30 - 17:00	14	354	0.003	14	354	0.020	14	354	0.023
17:00 - 17:30	14	354	0.002	14	354	0.038	14	354	0.040
17:30 - 18:00	14	354	0.000	14	354	0.025	14	354	0.025
18:00 - 18:30	13	373	0.001	13	373	0.016	13	373	0.017
18:30 - 19:00	13	373	0.000	13	373	0.005	13	373	0.005
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:			0.206			0.208			0.414

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 EMPLOY
BOLD print indicates peak (busiest) period

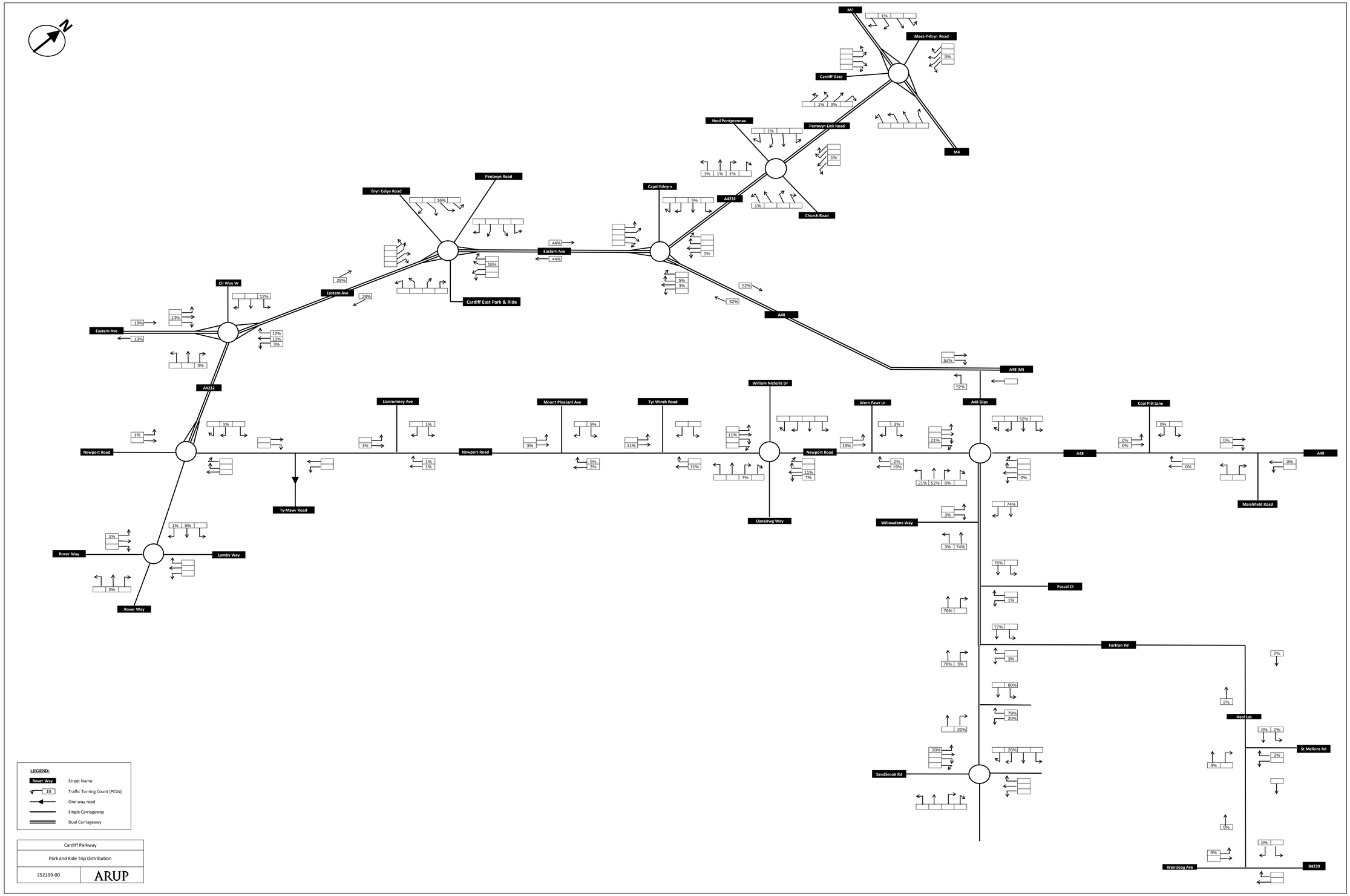
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 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	14	354	0.024	14	354	0.003	14	354	0.027
07:30 - 08:00	14	354	0.108	14	354	0.005	14	354	0.113
08:00 - 08:30	14	354	0.118	14	354	0.011	14	354	0.129
08:30 - 09:00	14	354	0.174	14	354	0.016	14	354	0.190
09:00 - 09:30	14	354	0.126	14	354	0.019	14	354	0.145
09:30 - 10:00	14	354	0.068	14	354	0.020	14	354	0.088
10:00 - 10:30	14	354	0.042	14	354	0.025	14	354	0.067
10:30 - 11:00	14	354	0.037	14	354	0.027	14	354	0.064
11:00 - 11:30	14	354	0.026	14	354	0.027	14	354	0.053
11:30 - 12:00	14	354	0.029	14	354	0.029	14	354	0.058
12:00 - 12:30	14	354	0.047	14	354	0.081	14	354	0.128
12:30 - 13:00	14	354	0.063	14	354	0.104	14	354	0.167
13:00 - 13:30	14	354	0.081	14	354	0.085	14	354	0.166
13:30 - 14:00	14	354	0.090	14	354	0.052	14	354	0.142
14:00 - 14:30	14	354	0.058	14	354	0.040	14	354	0.098
14:30 - 15:00	14	354	0.033	14	354	0.039	14	354	0.072
15:00 - 15:30	14	354	0.028	14	354	0.035	14	354	0.063
15:30 - 16:00	14	354	0.026	14	354	0.043	14	354	0.069
16:00 - 16:30	14	354	0.020	14	354	0.069	14	354	0.089
16:30 - 17:00	14	354	0.019	14	354	0.086	14	354	0.105
17:00 - 17:30	14	354	0.018	14	354	0.172	14	354	0.190
17:30 - 18:00	14	354	0.009	14	354	0.107	14	354	0.116
18:00 - 18:30	13	373	0.006	13	373	0.095	13	373	0.101
18:30 - 19:00	13	373	0.002	13	373	0.024	13	373	0.026
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:			1.252			1.214			2.466

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.*

Appendix L

Cardiff Parkway Railway Station
Traffic Flow Diagrams

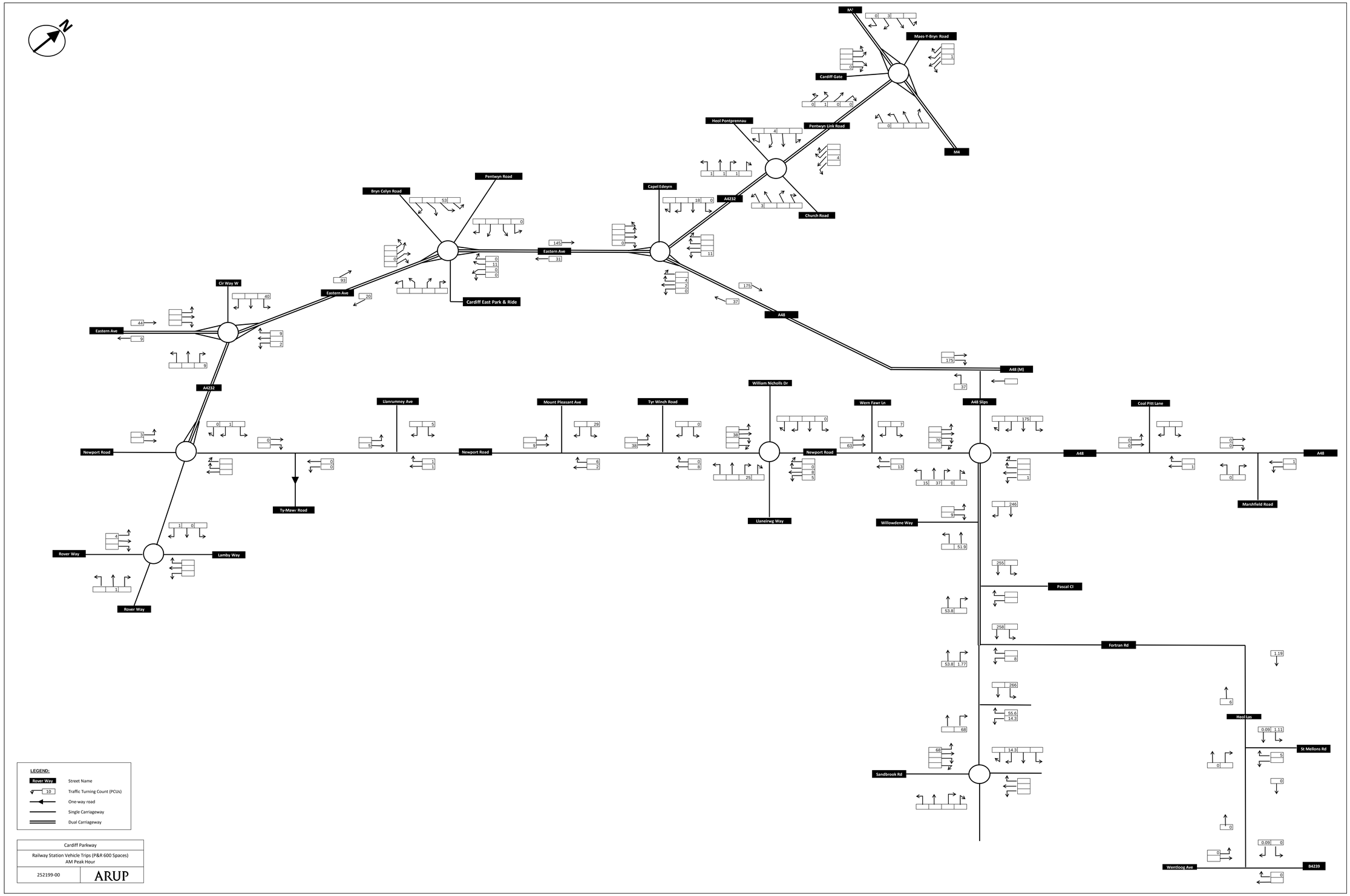


Cardiff Parkway

Park and Ride Trip Distribution

252199-00

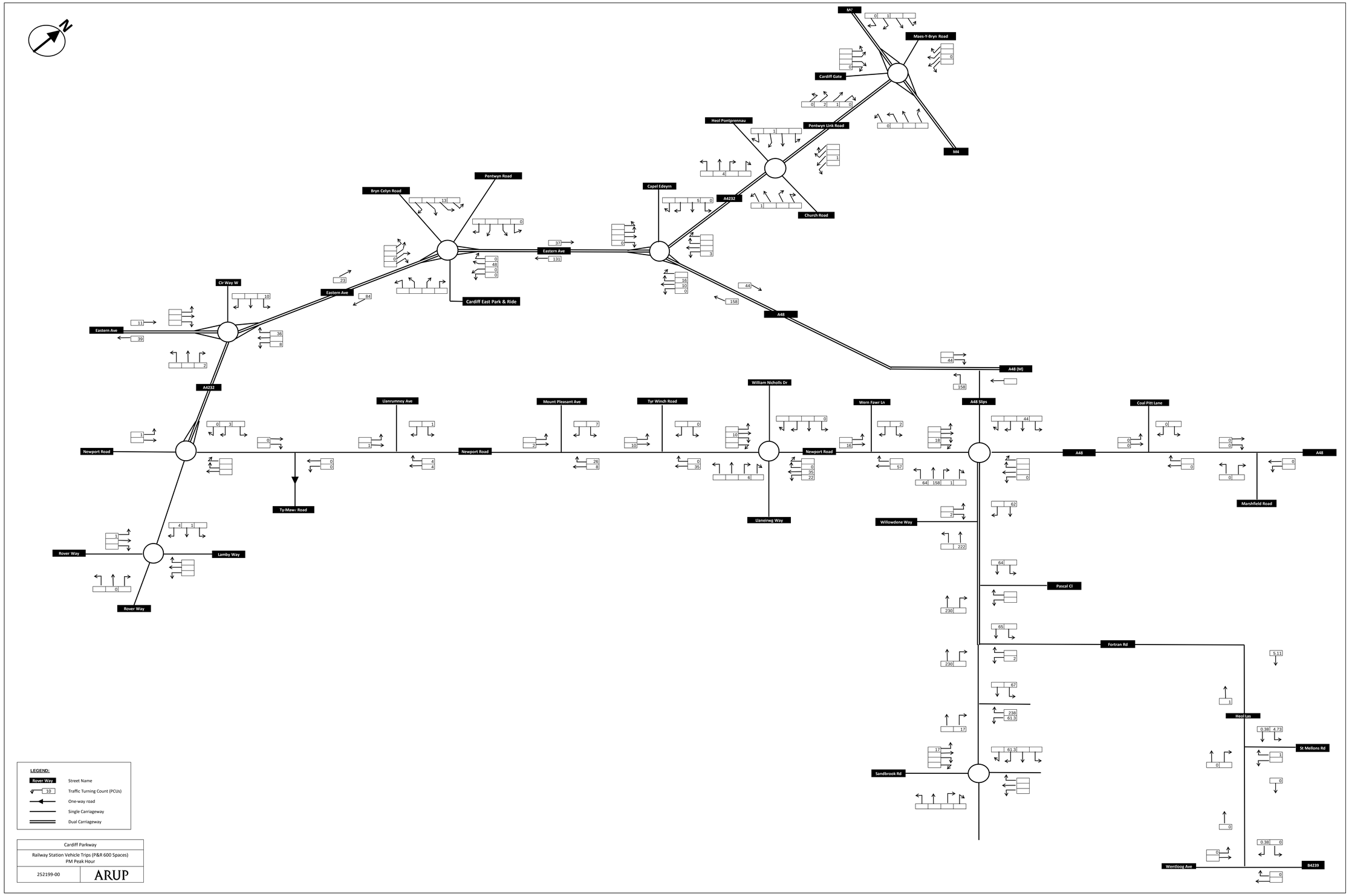
ARUP



LEGEND:

Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

Cardiff Parkway	
Railway Station Vehicle Trips (P&R 600 Spaces) AM Peak Hour	
252199-00	ARUP



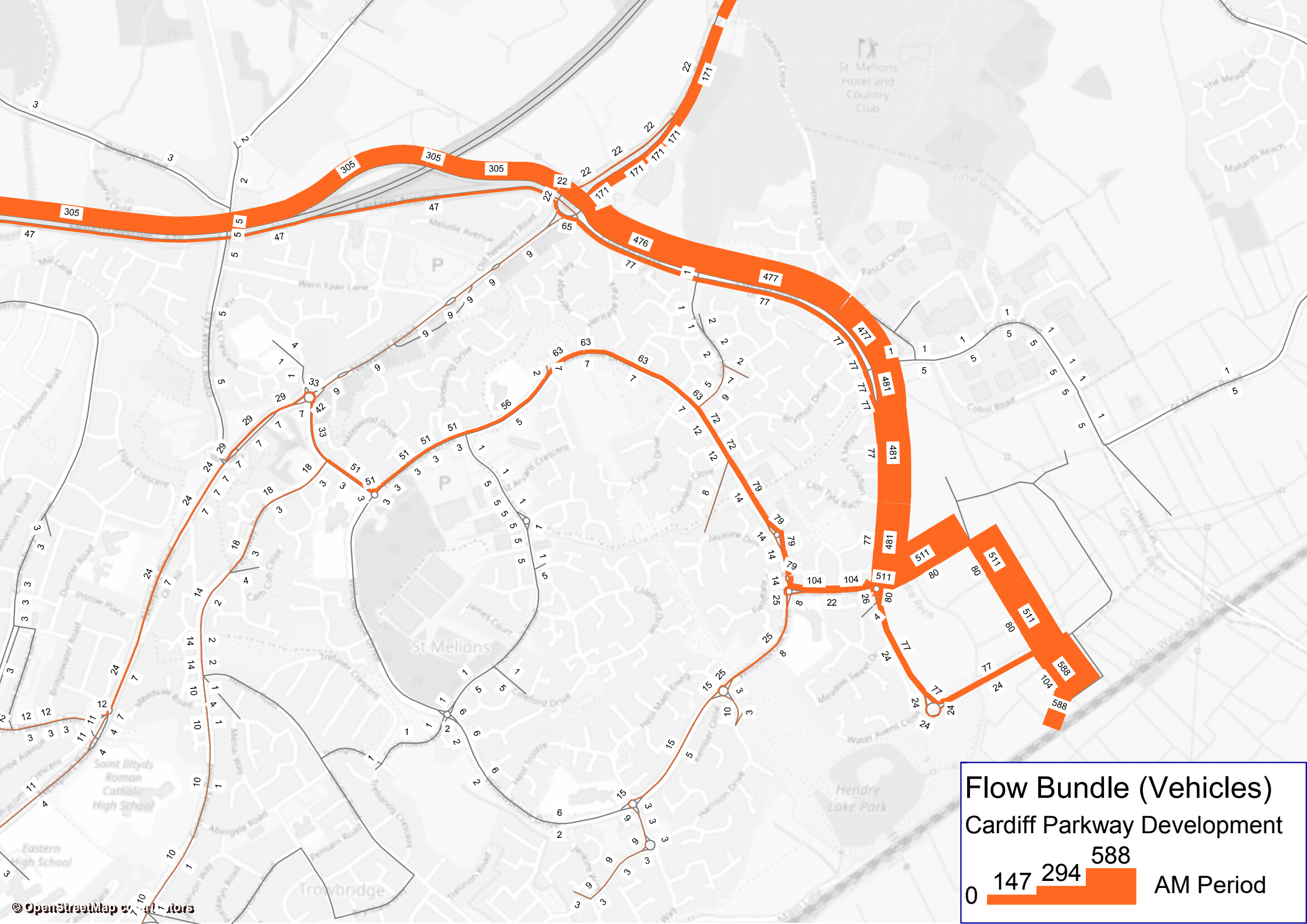
LEGEND:

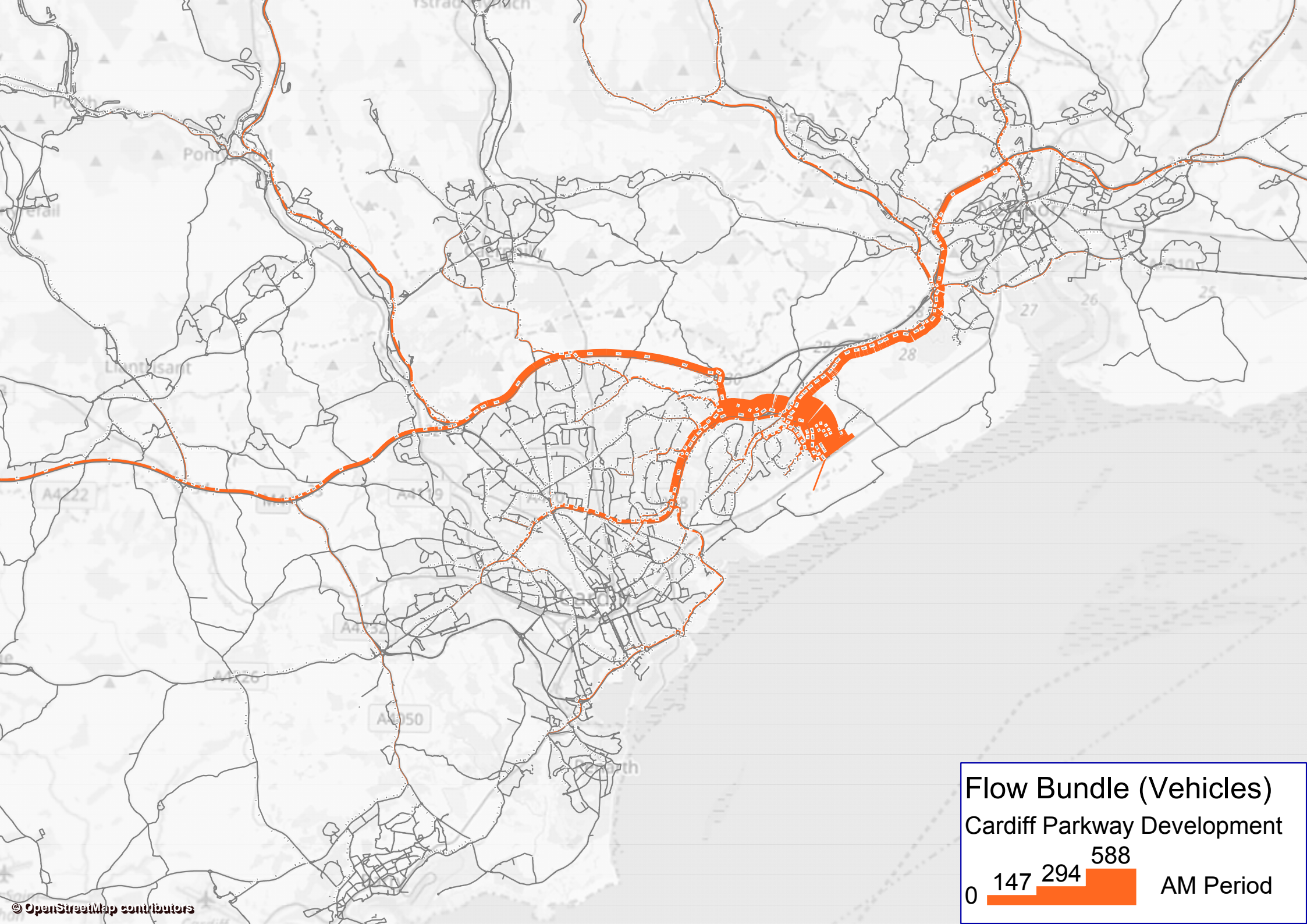
Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

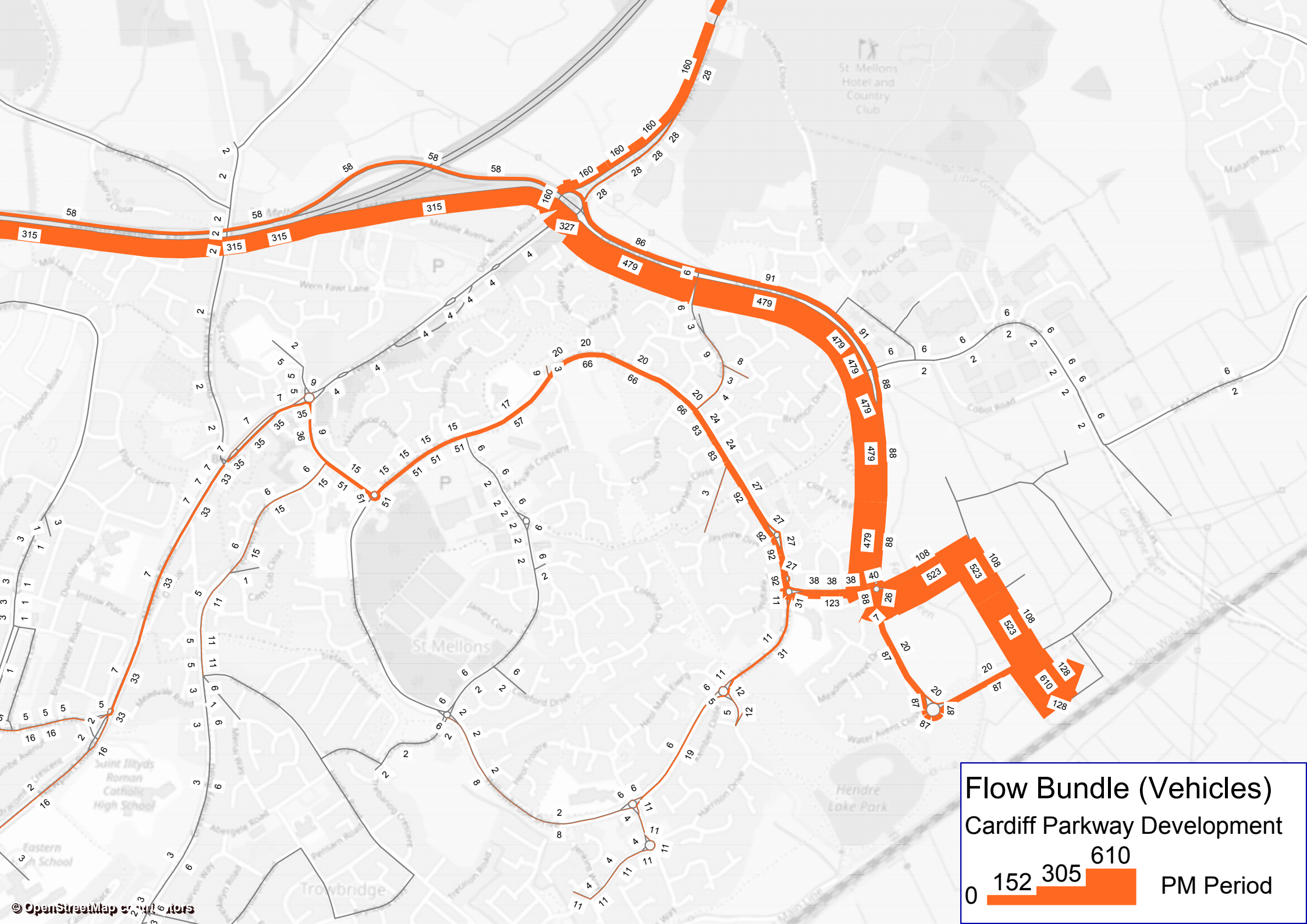
Cardiff Parkway	
Railway Station Vehicle Trips (P&R 600 Spaces) PM Peak Hour	
252199-00	ARUP

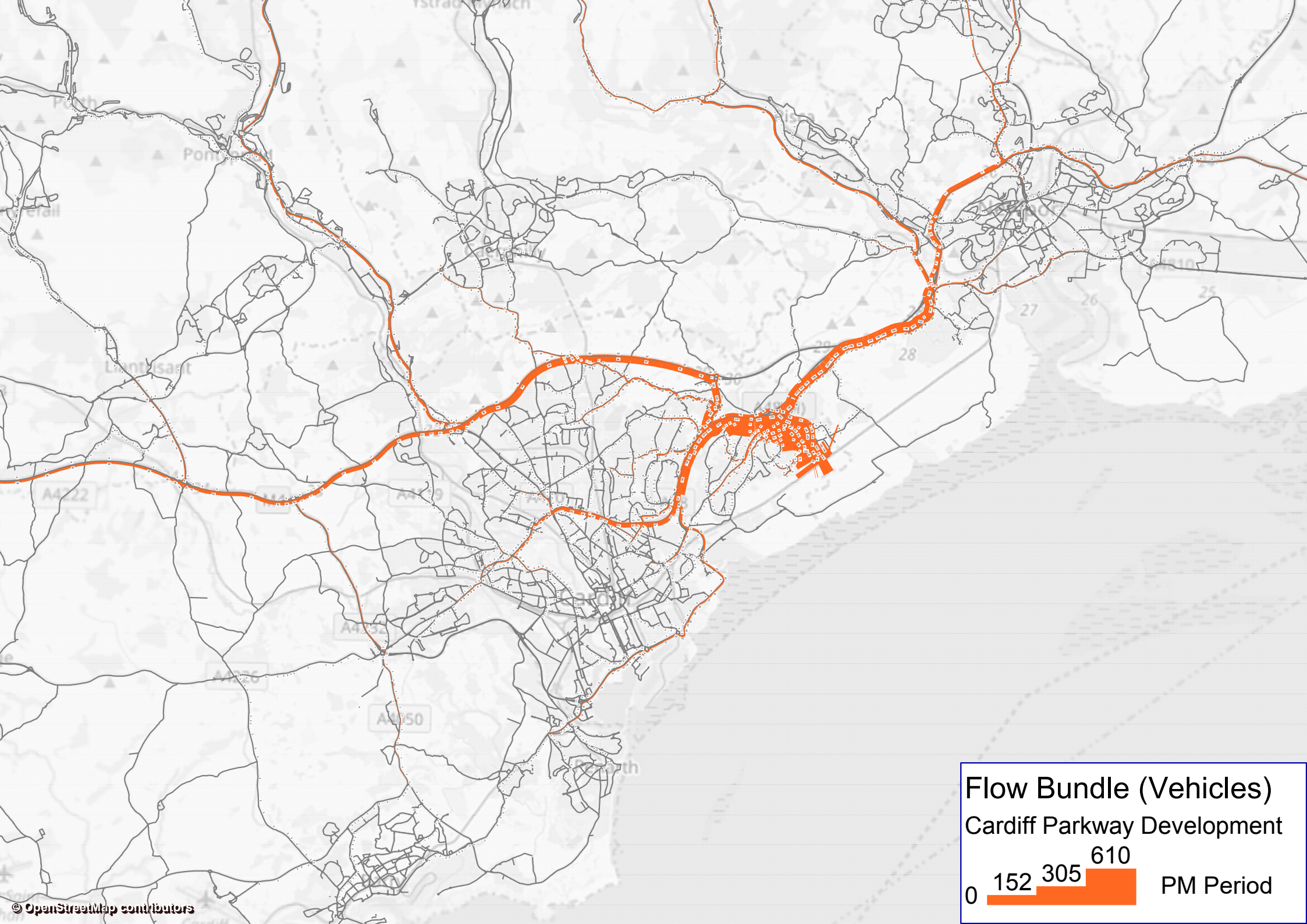
Appendix M

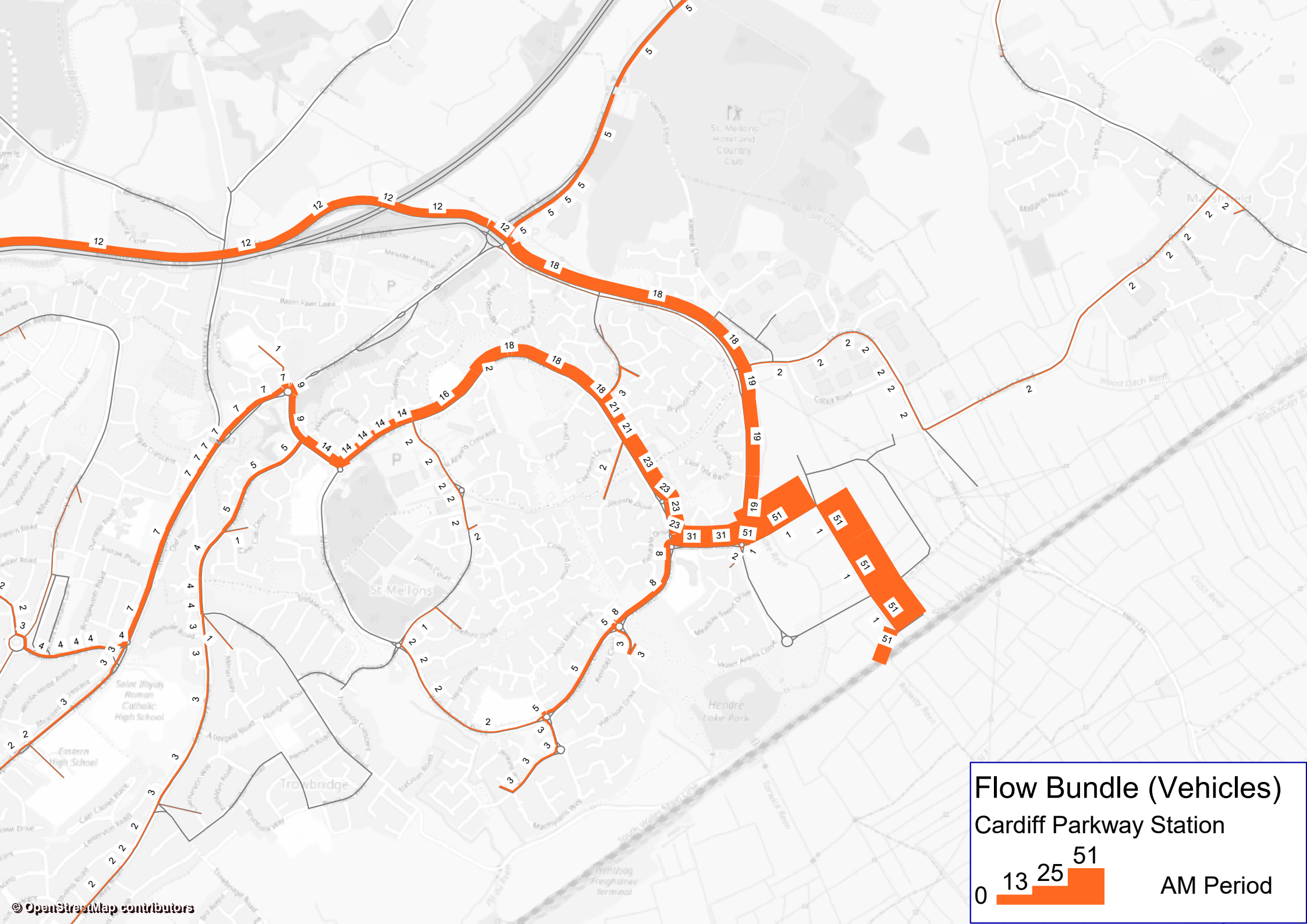
SEWTM Outputs

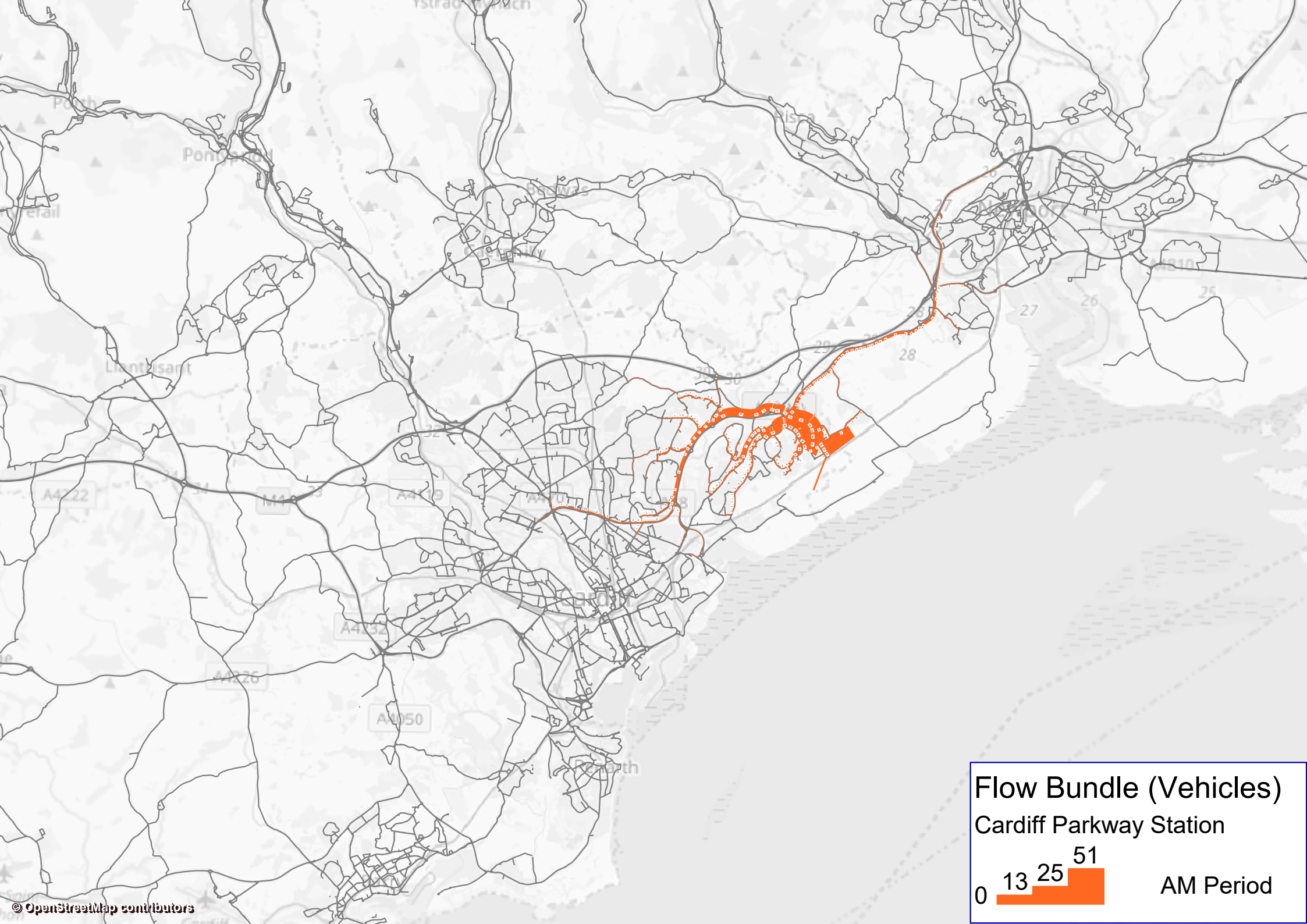

Flow Bundle (Vehicles)
Cardiff Parkway Development
0
147
294
588
AM Period
© OpenStreetMap contributors

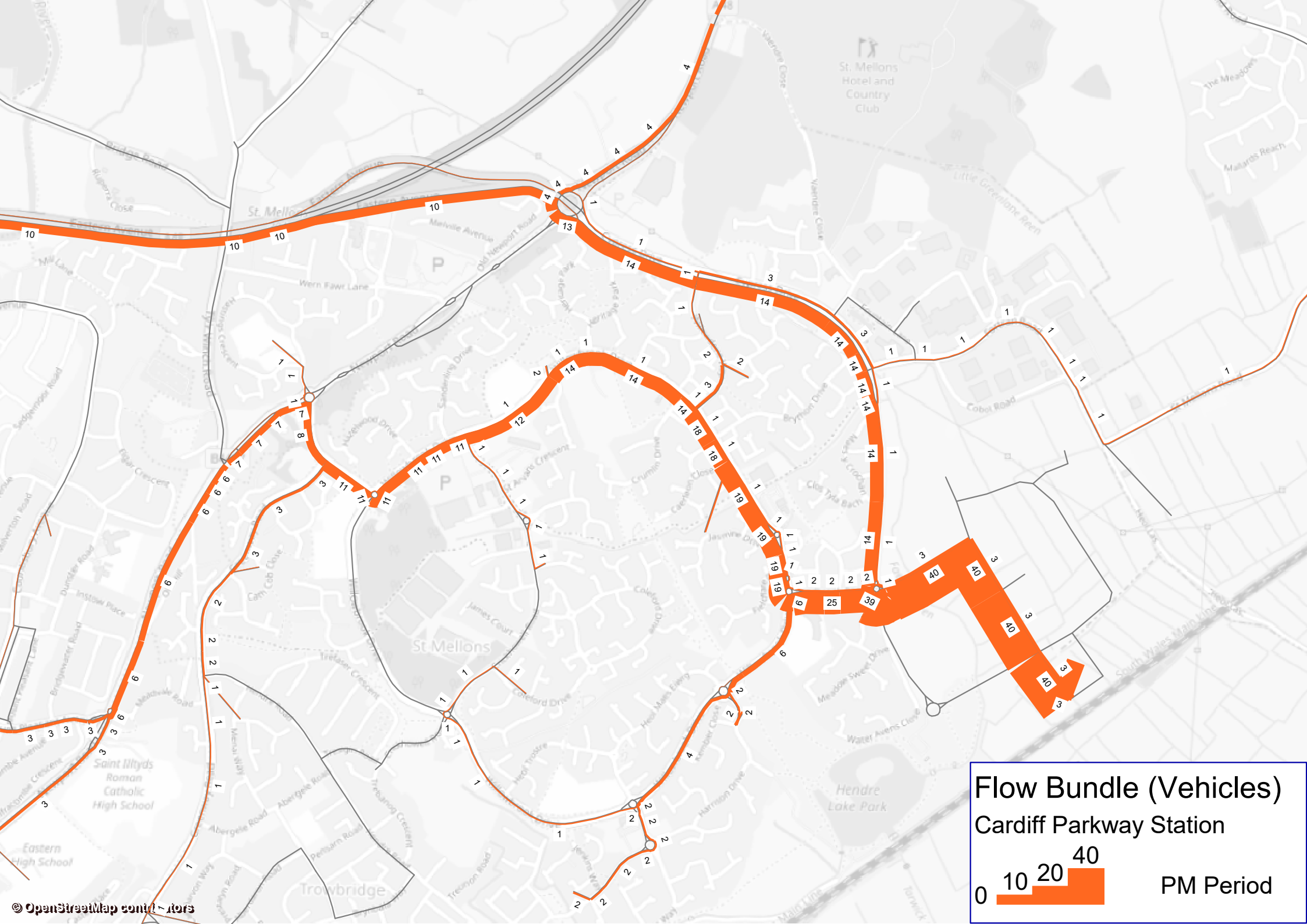

Flow Bundle (Vehicles)
Cardiff Parkway Development
588
294
147
0
AM Period
© OpenStreetMap contributors

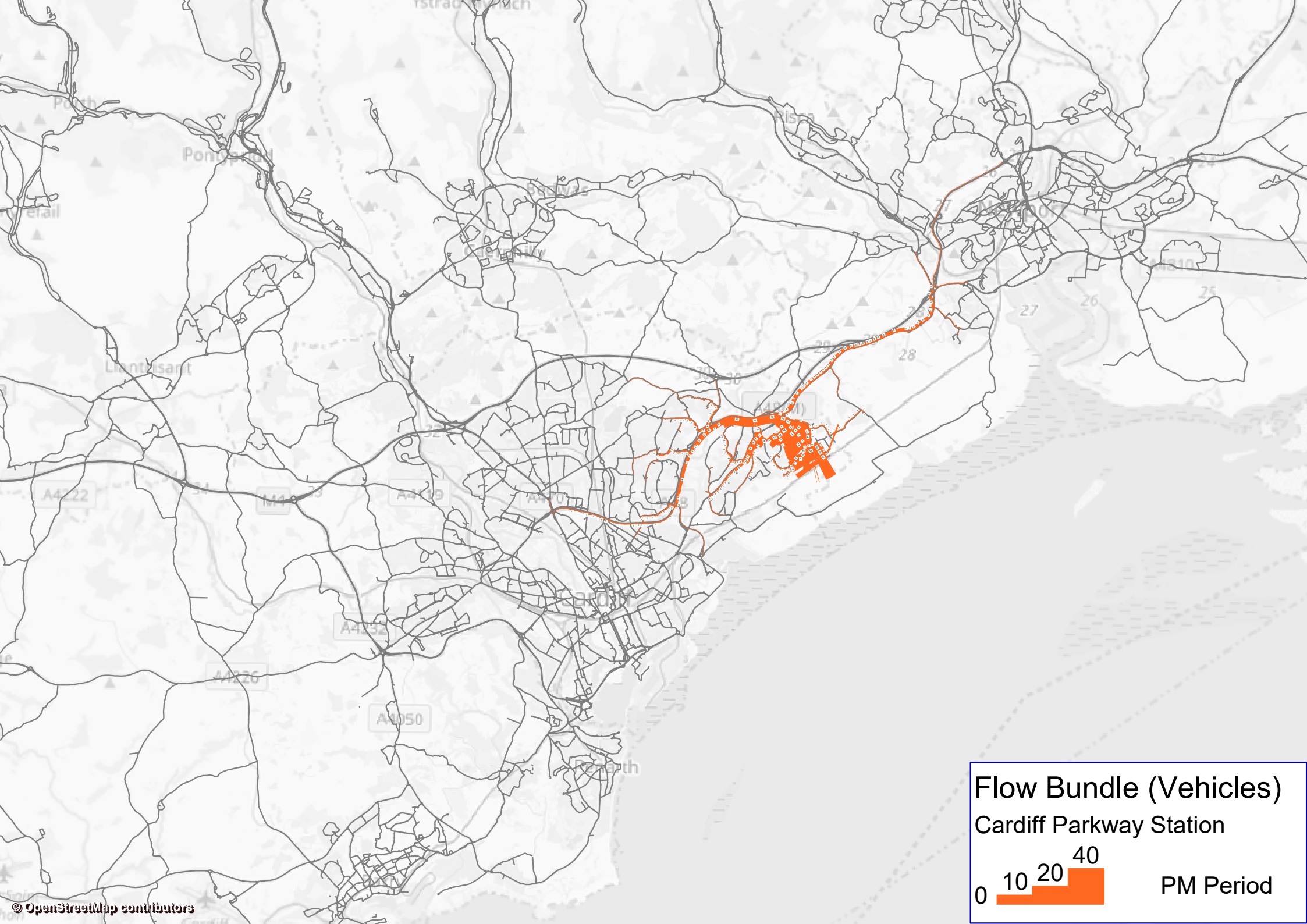

Flow Bundle (Vehicles)
Cardiff Parkway Development
0
152
305
610
PM Period
© OpenStreetMap contributors

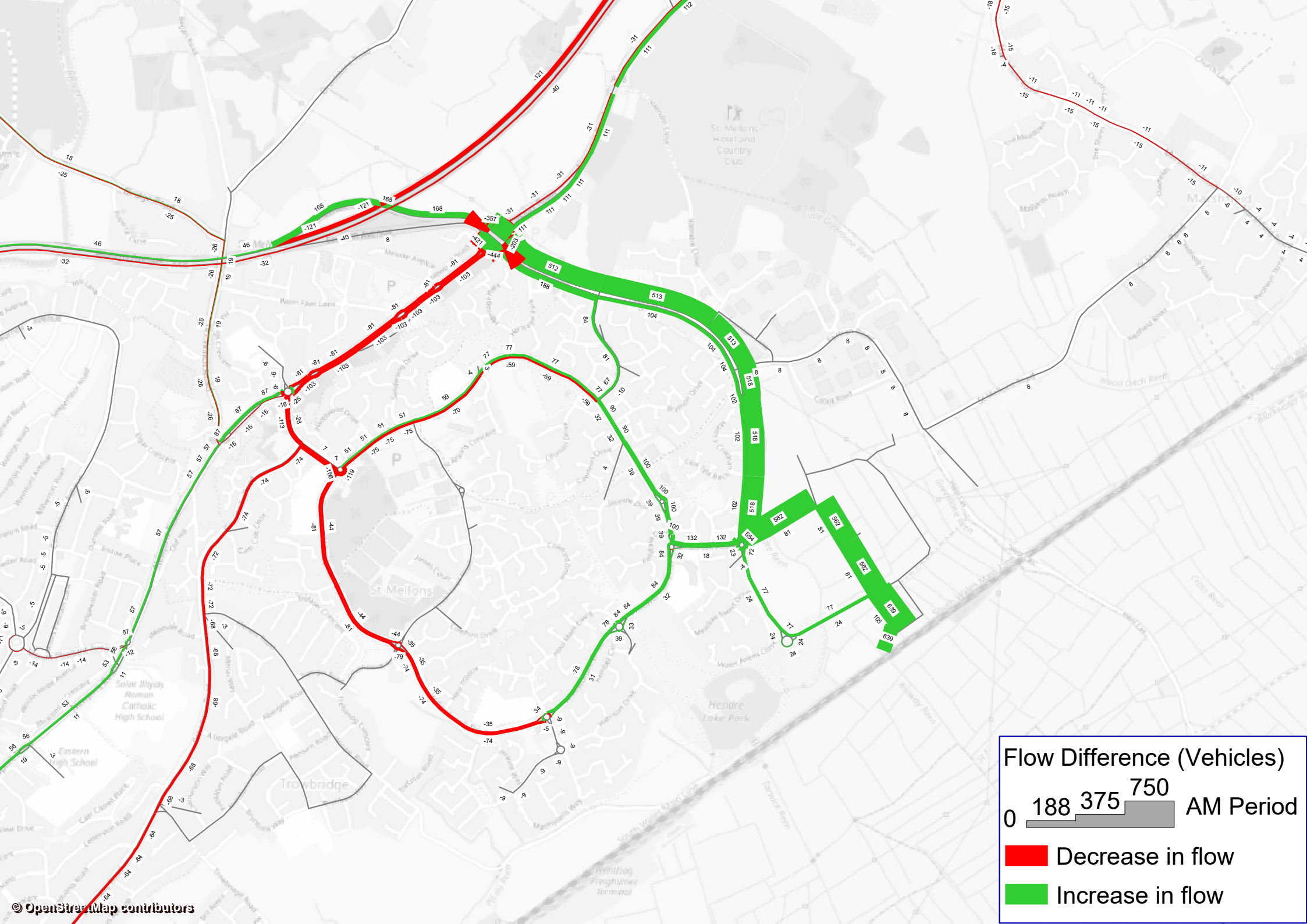

Flow Bundle (Vehicles)
Cardiff Parkway Development
0
152
305
610
PM Period
© OpenStreetMap contributors

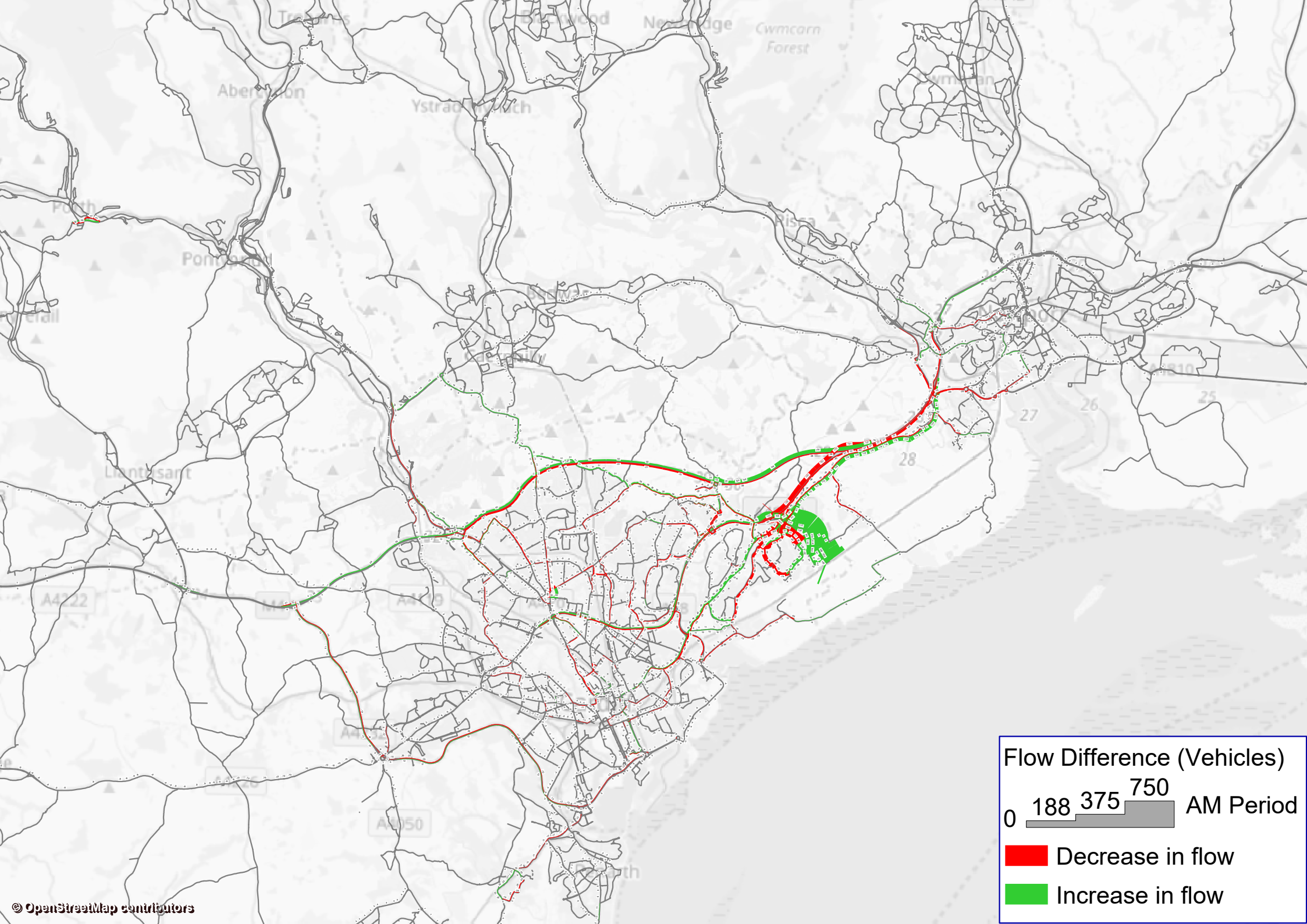

Flow Bundle (Vehicles)
Cardiff Parkway Station
0
13
25
51
AM Period
© OpenStreetMap contributors

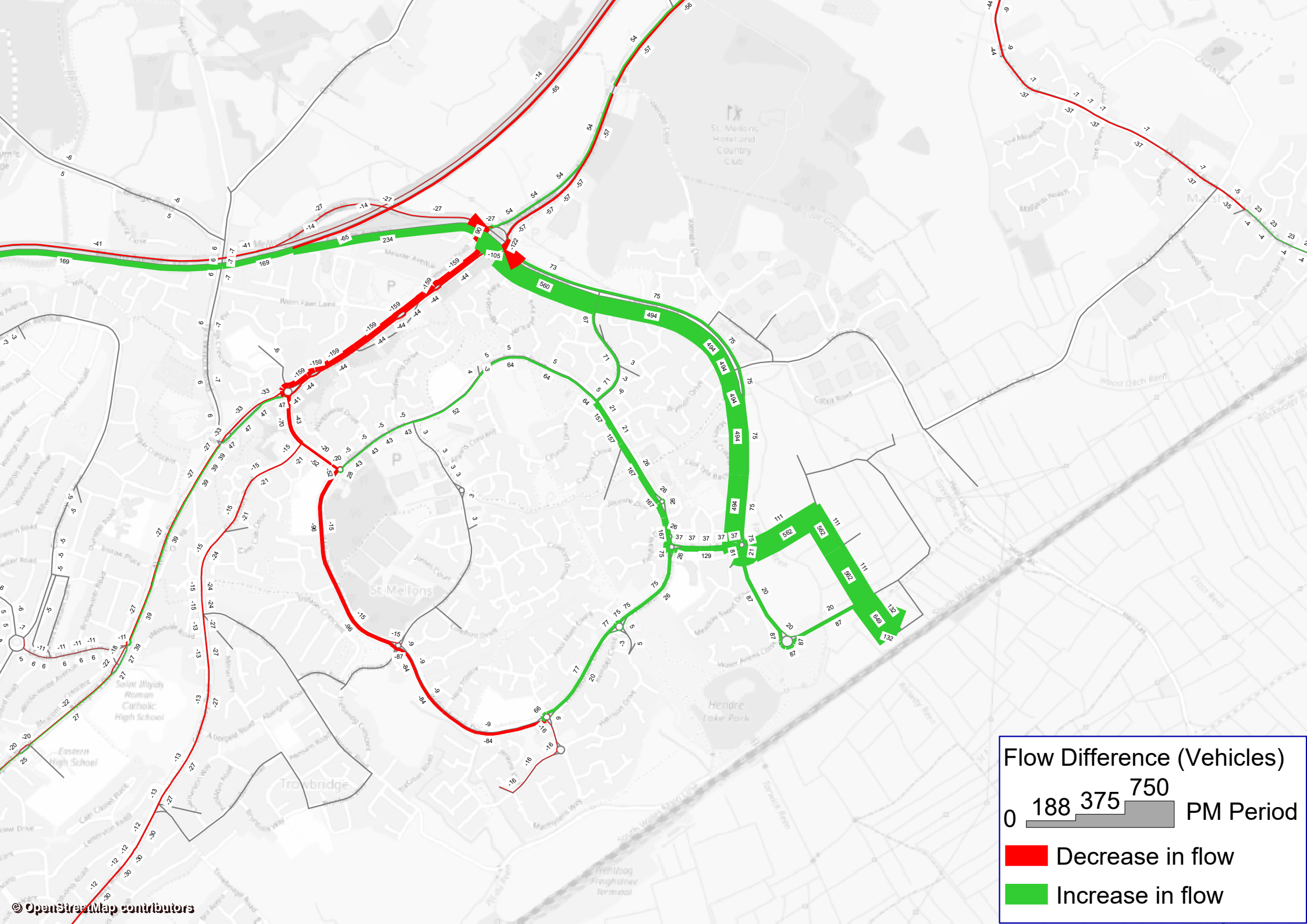

Flow Bundle (Vehicles)
Cardiff Parkway Station
0
13
25
51
AM Period
© OpenStreetMap contributors

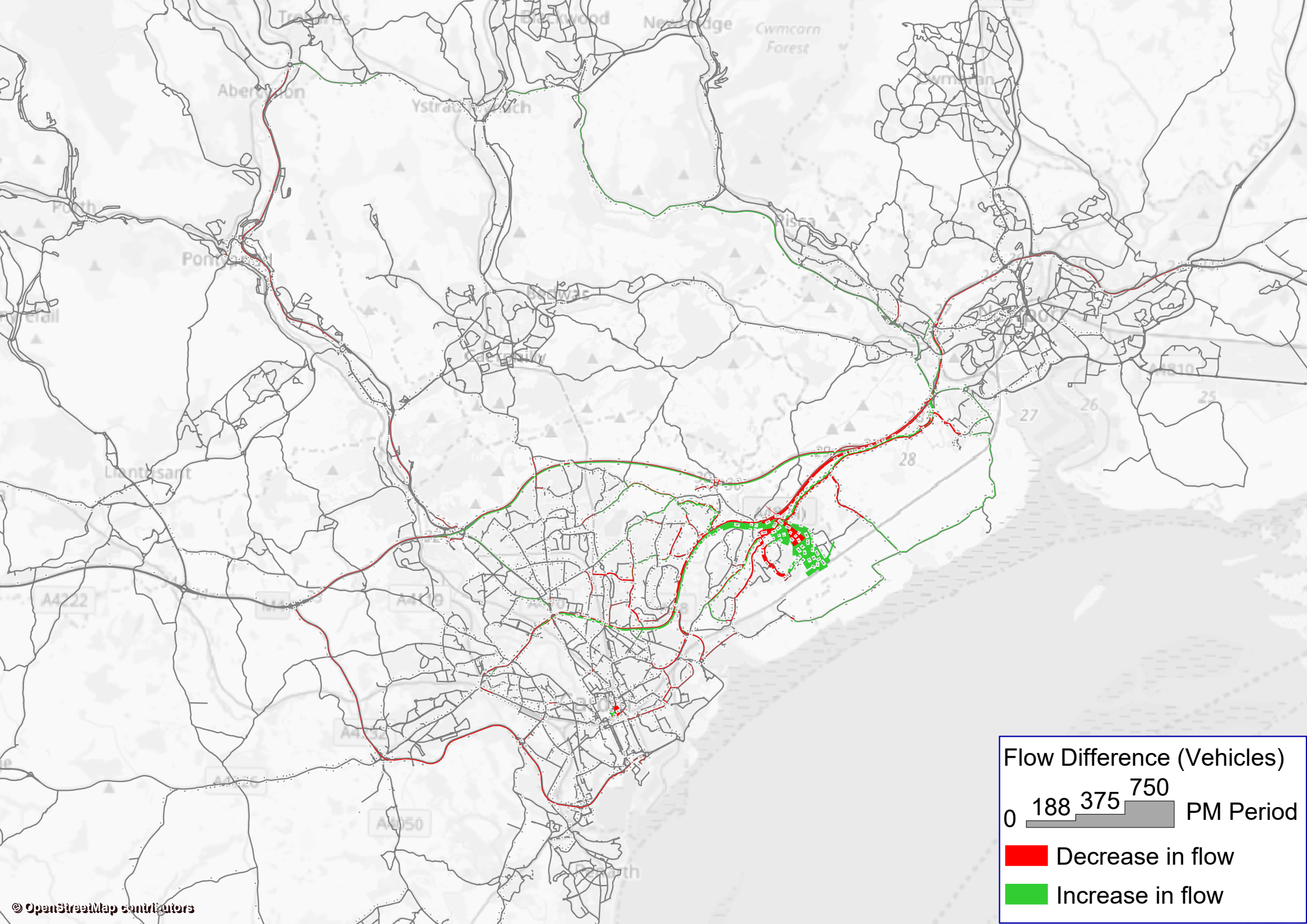

Flow Bundle (Vehicles)
Cardiff Parkway Station
0
10
20
40
PM Period
© OpenStreetMap contributors


Flow Bundle (Vehicles)
Cardiff Parkway Station
0
10
20
40
PM Period
© OpenStreetMap contributors


Flow Difference (Vehicles)
0
188
375
750
AM Period
Decrease in flow
Increase in flow
© OpenStreetMap contributors

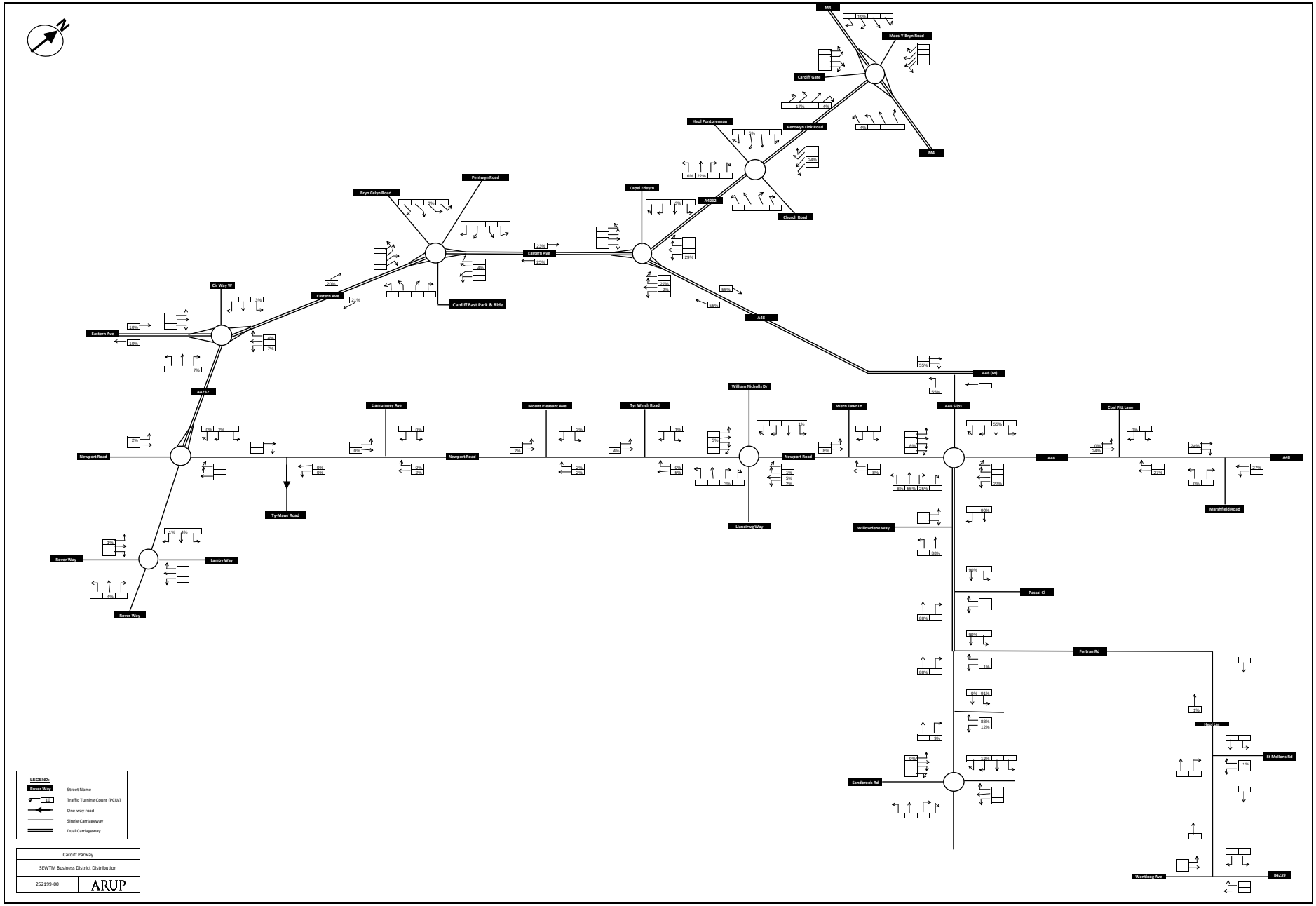

Flow Difference (Vehicles)
0
188
375
750
AM Period
Decrease in flow
Increase in flow
© OpenStreetMap contributors


Flow Difference (Vehicles)
0
188
375
750
PM Period
Decrease in flow
Increase in flow
© OpenStreetMap contributors

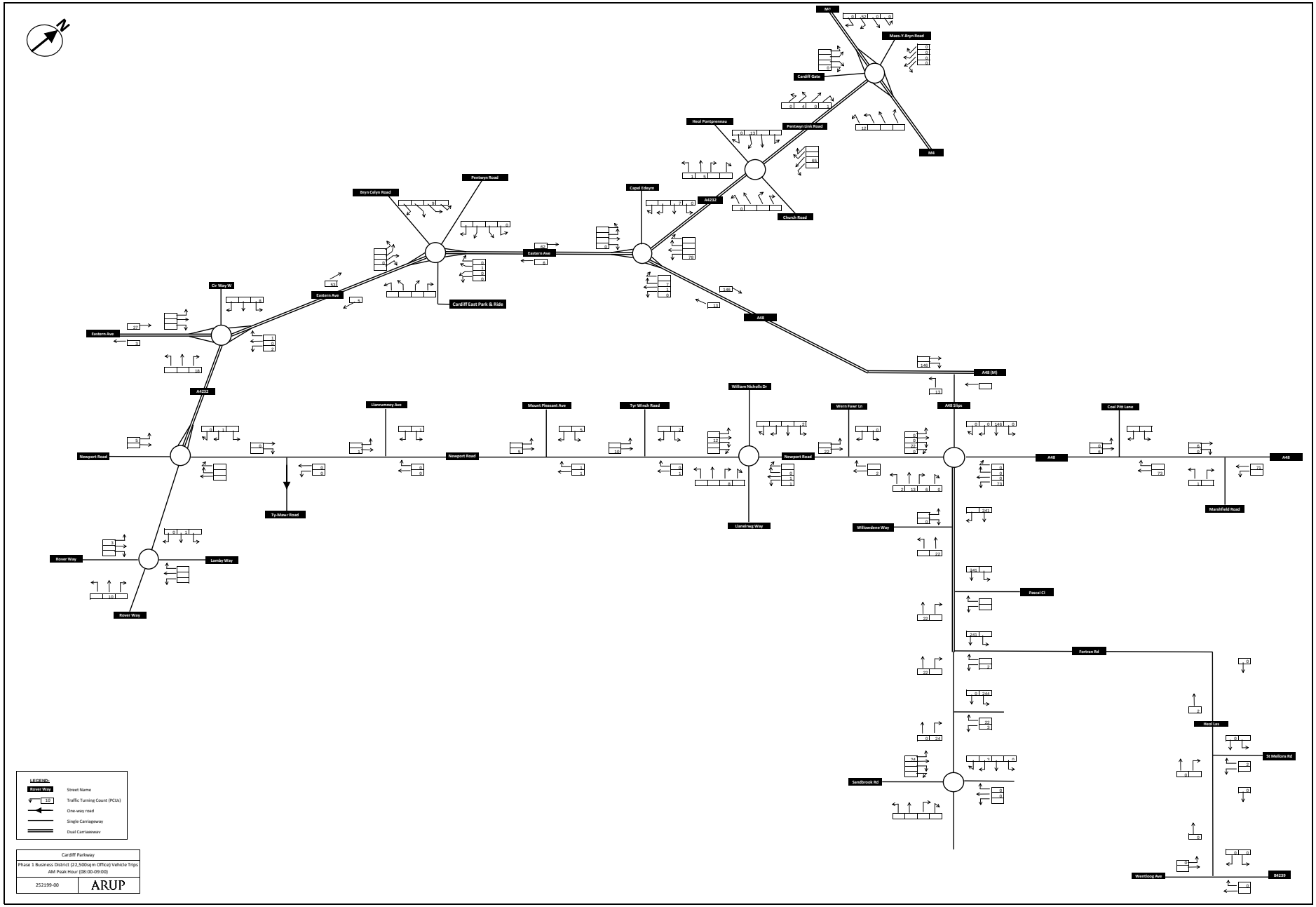

Flow Difference (Vehicles)
0
188
375
750
PM Period
Decrease in flow
Increase in flow
© OpenStreetMap contributors

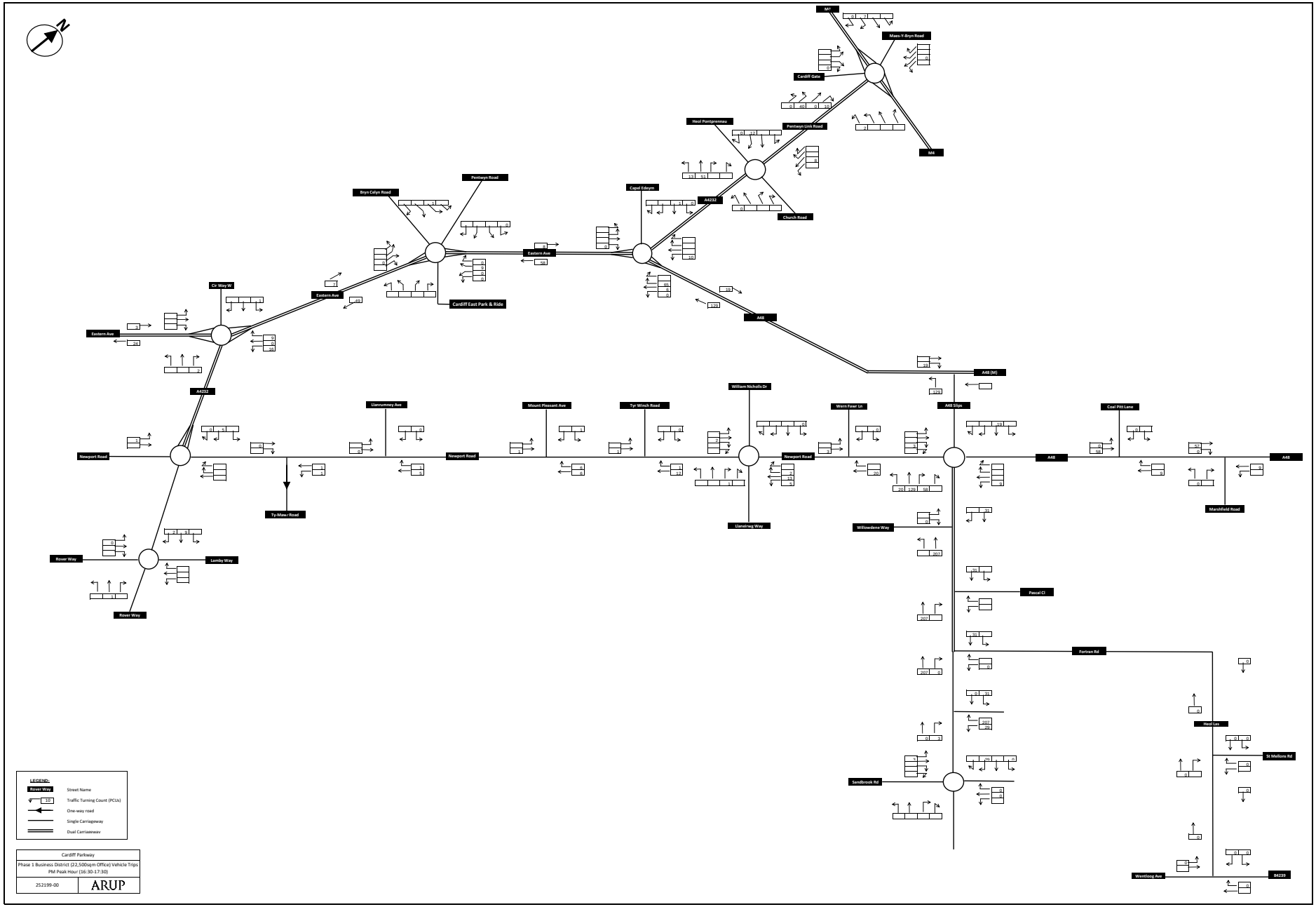
Appendix N

Business District Traffic Flow Diagrams



Cardiff Parway	
SEWTM Business District Distribution	
252199-00	ARUP

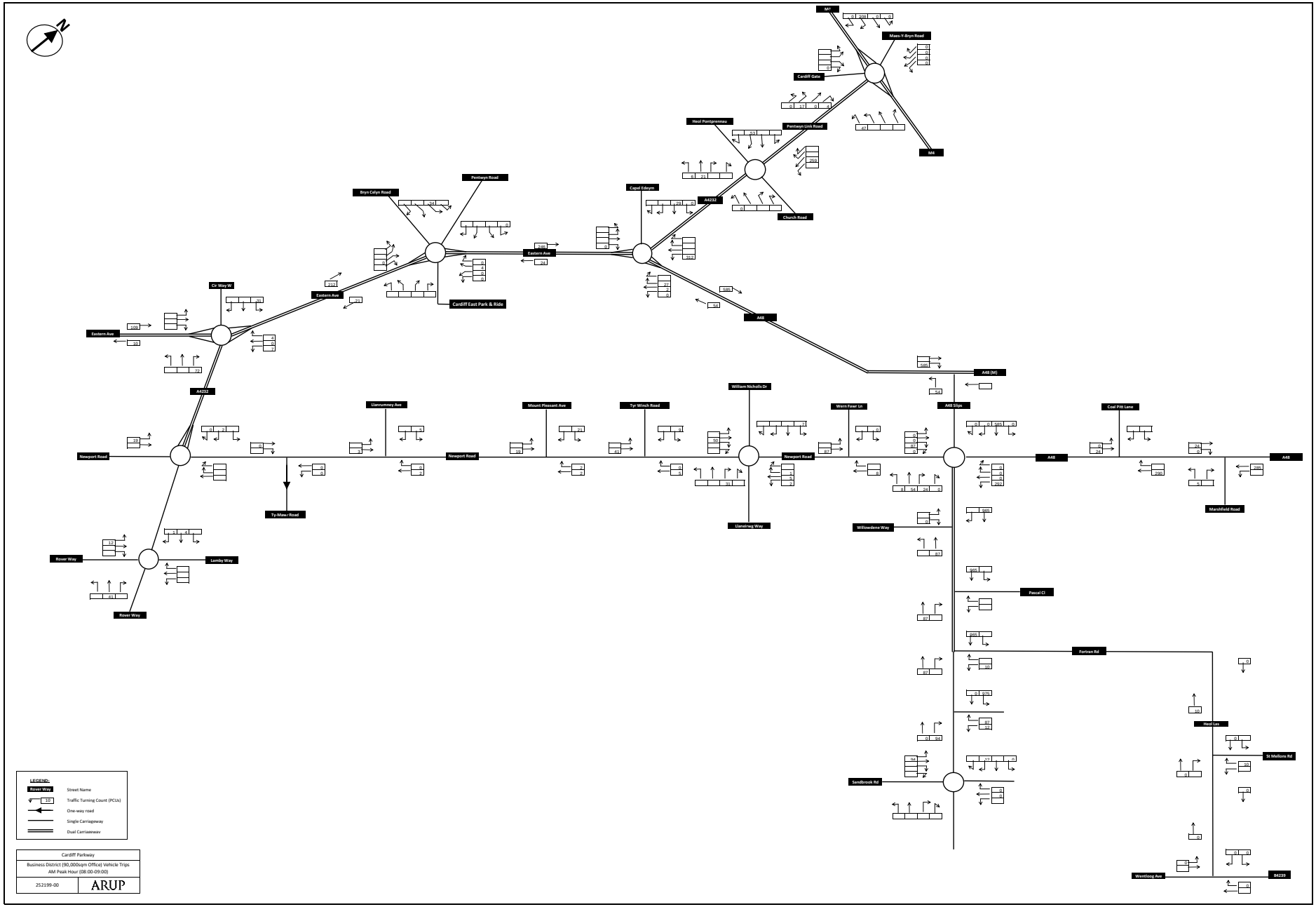

N
M4
Maes-Y-Bryn Road
Cardiff Gate
Heol Pontprennau
Pentwyn Link Road
Church Road
A4232
Capel Edeyrn
Pentwyn Road
Bryn Celyn Road
Eastern Ave
Cardiff East Park & Ride
Cr Way W
A48
A48 (M)
A48 Slips
William Nicholls Dr
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
Worn Fawr Ln
Coal Pitt Lane
Newport Road
Ty Mawr Road
Llanstreg Way
Willowdene Way
Marshfield Road
Rover Way
Lamby Way
Pascal Cl
Fortran Rd
Heol Las
St Mellons Rd
Sandbrook Rd
Wentloog Ave
B4239
LEGEND:
Rover Way
Street Name
10
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriaeewav
Cardiff Parkway
Phase 1 Business District (22,500sqm Office) Vehicle Trips
AM Peak Hour (08:00-09:00)
252199-00
ARUP

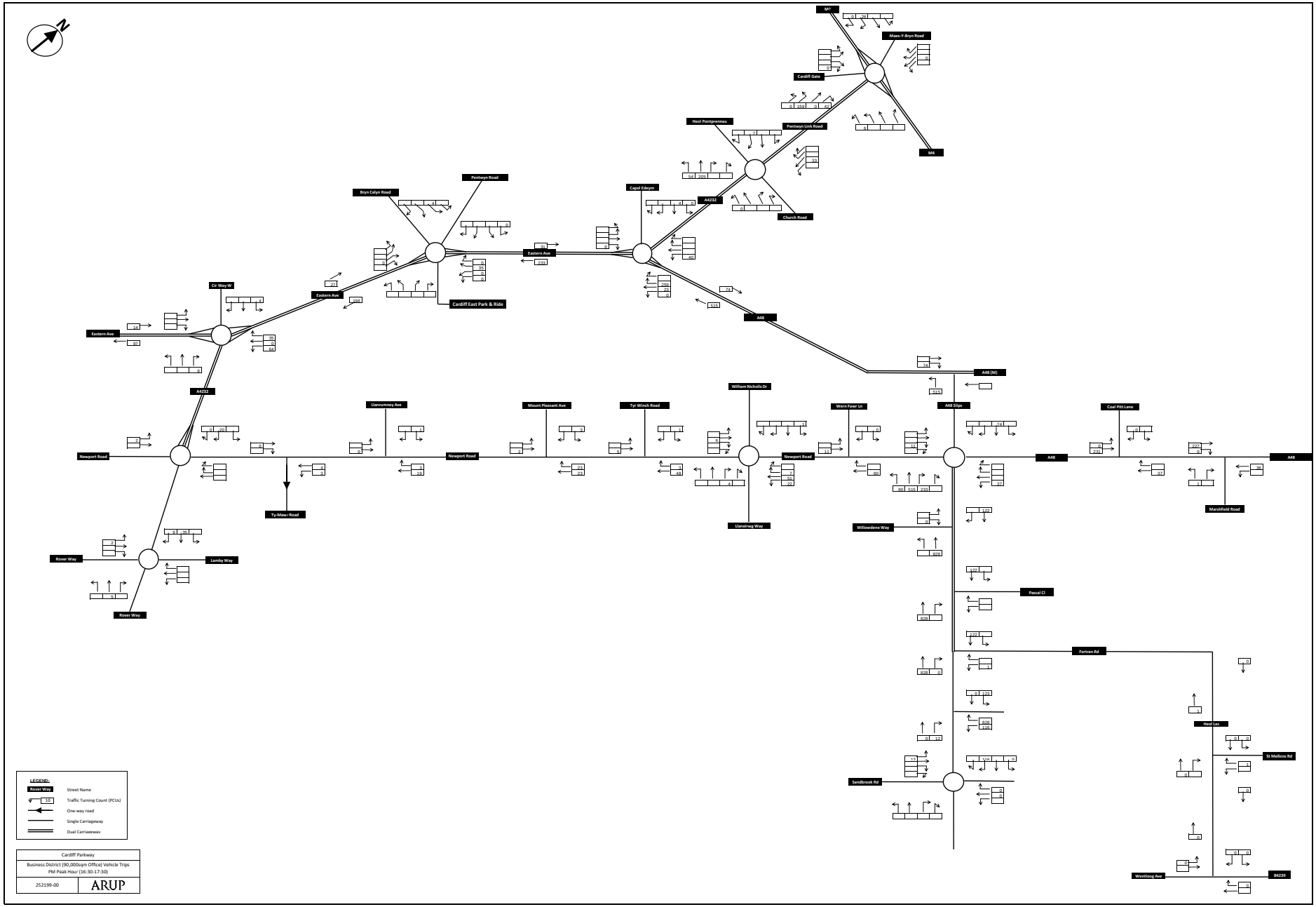


LEGEND:

Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriaeewav

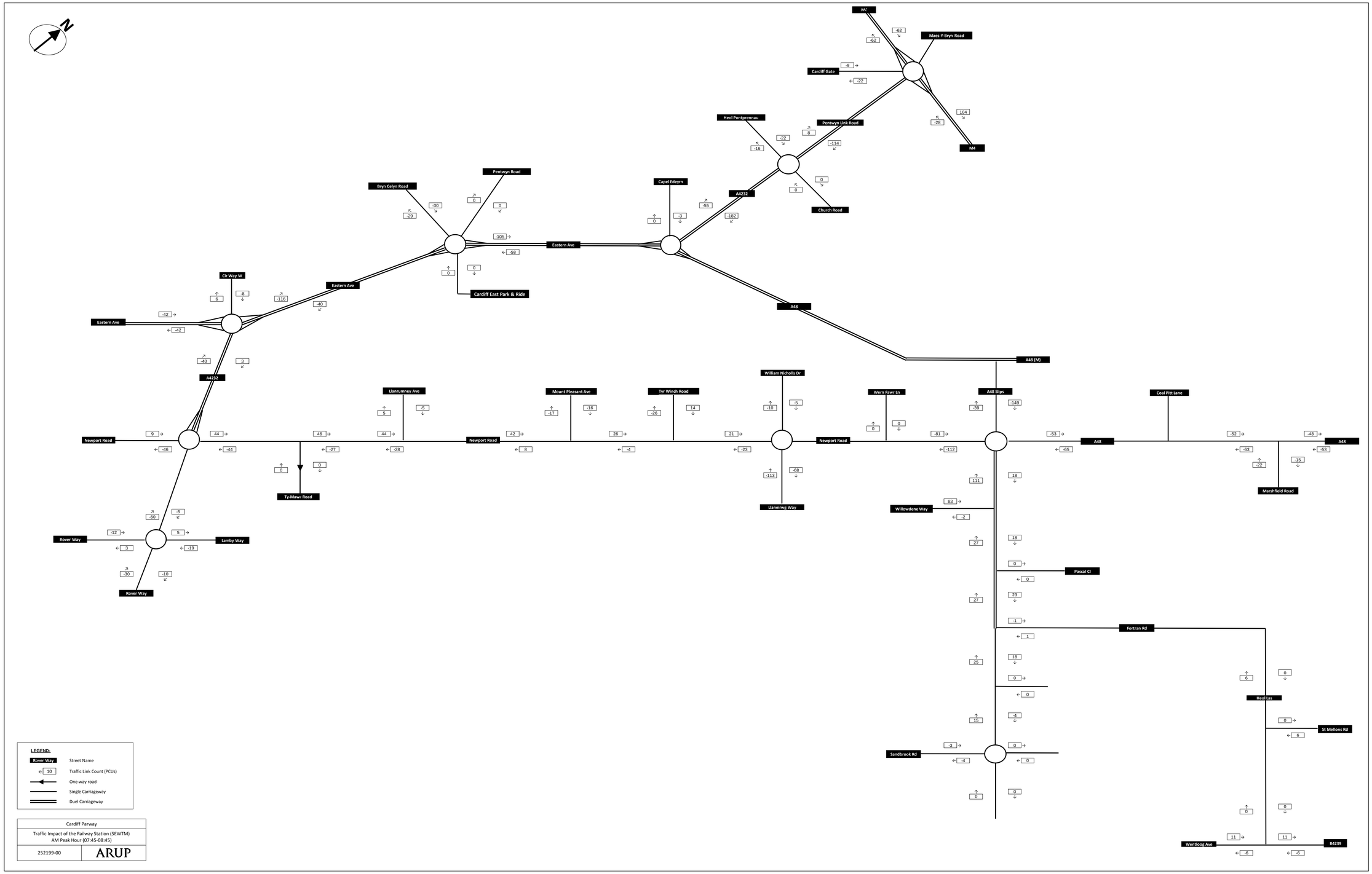
Cardiff Parkway	
Phase 1 Business District (22,500sqm Office) Vehicle Trips PM Peak Hour (16:30-17:30)	
252199-00	ARUP


N
M4
Maes-Y-Bryn Road
Cardiff Gate
Heol Pontprennau
Penhwyn Link Road
Church Road
A4232
Capel Edeyrn
Bryn Celyn Road
Pentwyn Road
Eastern Ave
Cardiff East Park & Ride
Cr Way W
A48
A48 (M)
A48 Slips
William Nicholls Dr
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
Wern Fawr Ln
Coal Pitt Lane
Newport Road
Ty Mawr Road
Llanstreg Way
Willowdene Way
Marshfield Road
Rover Way
Lamby Way
Pascal Cl
Fortran Rd
Heol Las
St Mellons Rd
Sandbrook Rd
Wentloog Ave
B4239
LEGEND:
Rover Way
Street Name
10
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriaewaav
Cardiff Parkway
Business District (90,000sqm Office) Vehicle Trips
AM Peak Hour (08:00-09:00)
252199-00
ARUP


N
M4
Maes-Y-Bryn Road
Cardiff Gate
Heol Pontprennau
Penhwyn Link Road
Church Road
A4232
Capel Edeyrn
Bryn Celyn Road
Penhwyn Road
Eastern Ave
Cardiff East Park & Ride
Cr Way W
A48
A48 (M)
A48 Slips
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
William Nicholls Dr
Worn Fawr Ln
Coal Pitt Lane
Newport Road
Ty Mawr Road
Llanatwg Way
Willowdene Way
Marshfield Road
Rover Way
Lamby Way
Pascal Cl
Fortran Rd
Heol Las
St Mellons Rd
Sandbrook Rd
Wentloog Ave
B4239
LEGEND:
Rover Way
Street Name
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriaeewav
Cardiff Parkway
Business District (90,000sqm Office) Vehicle Trips
PM Peak Hour (16:30-17:30)
252199-00
ARUP

Appendix O

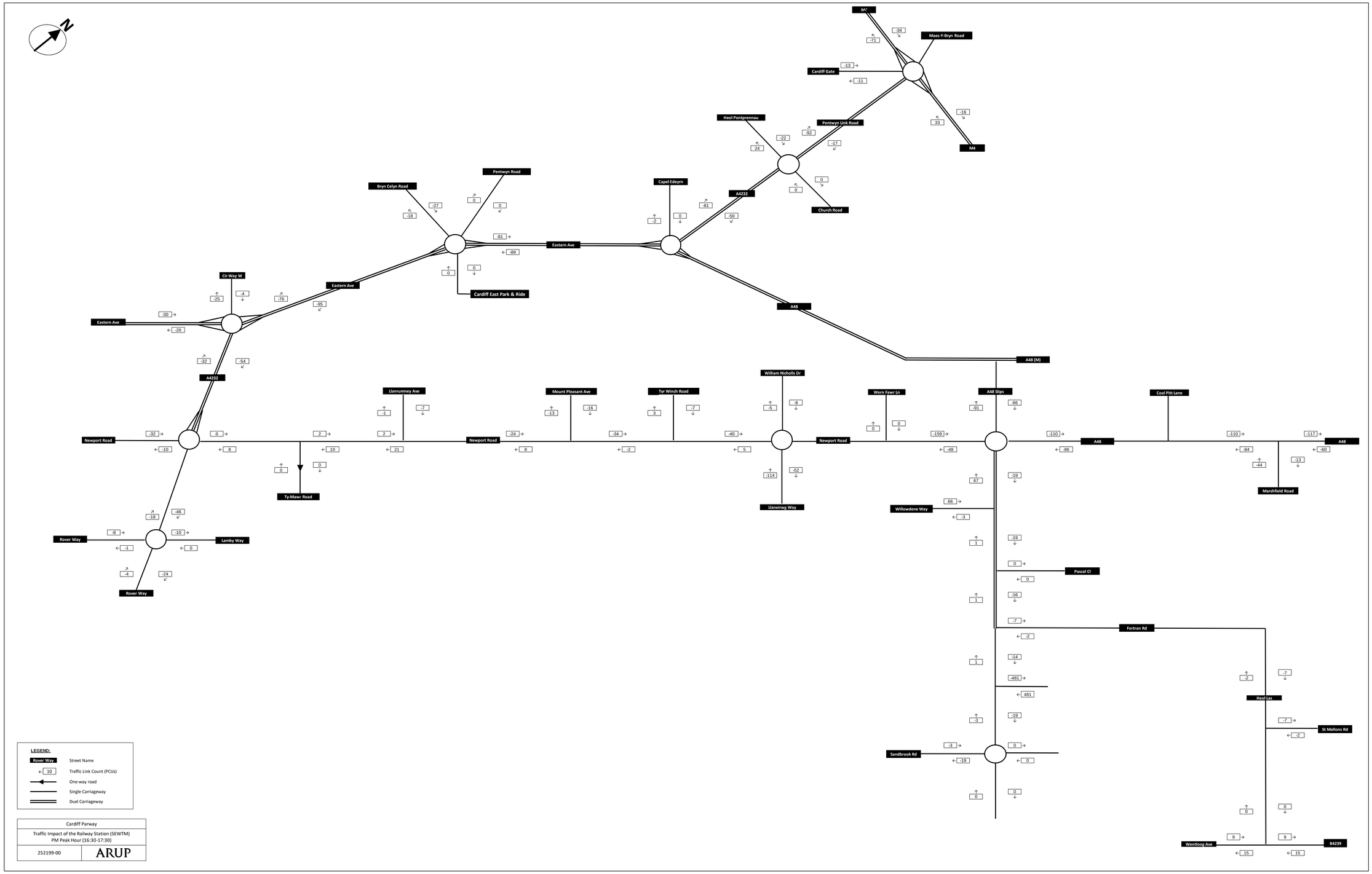
Reduction in Existing Traffic Calculations



LEGEND:

Rover Way	Street Name
← 10	Traffic Link Count (PCUs)
	One-way road
	Single Carriageway
	Duel Carriageway

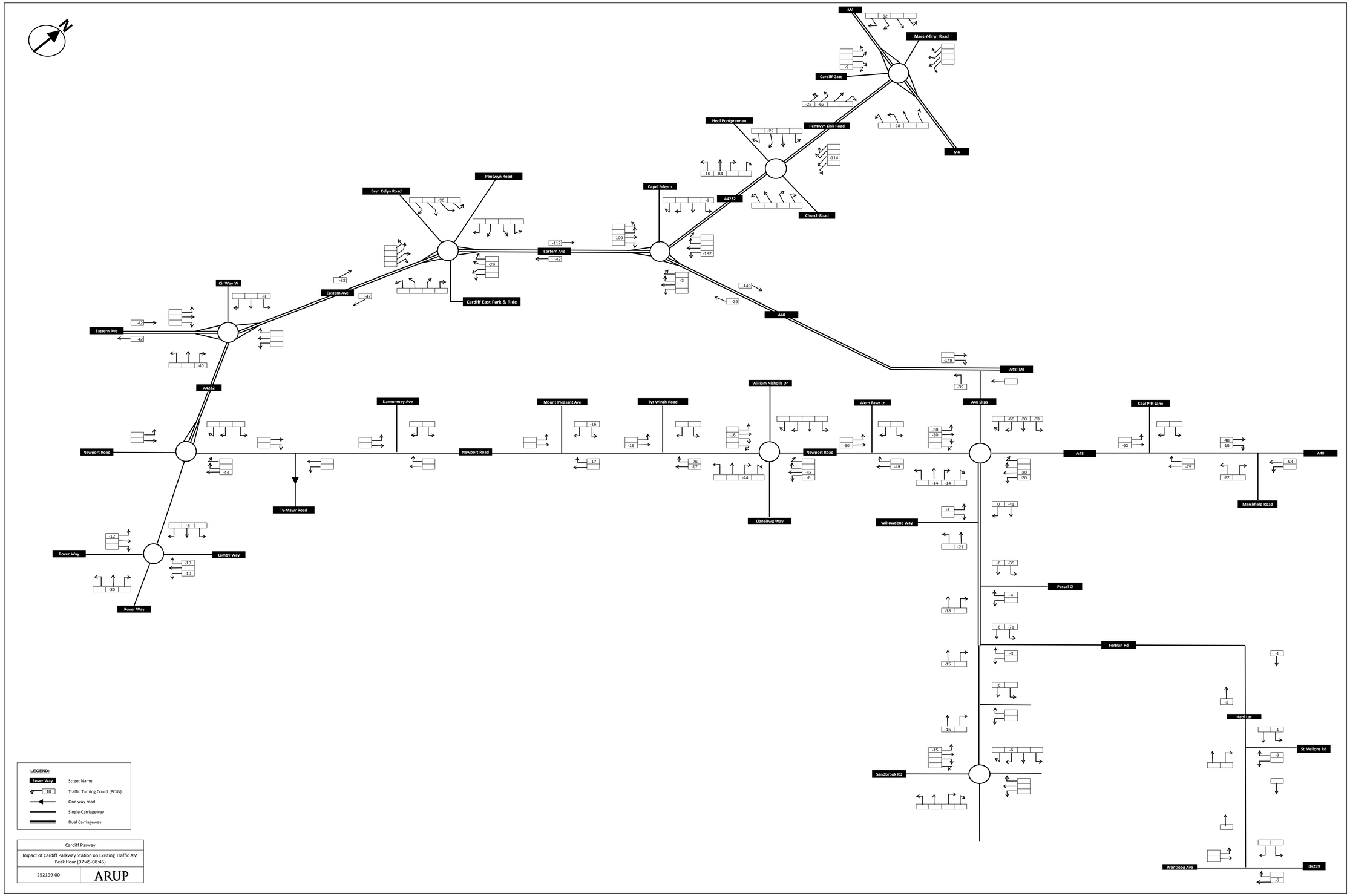
Cardiff Parway	
Traffic Impact of the Railway Station (SEWTM) AM Peak Hour (07:45-08:45)	
252199-00	ARUP



Cardiff Parway

Traffic Impact of the Railway Station (SEWTM)
PM Peak Hour (16:30-17:30)

252199-00 ARUP



LEGEND:

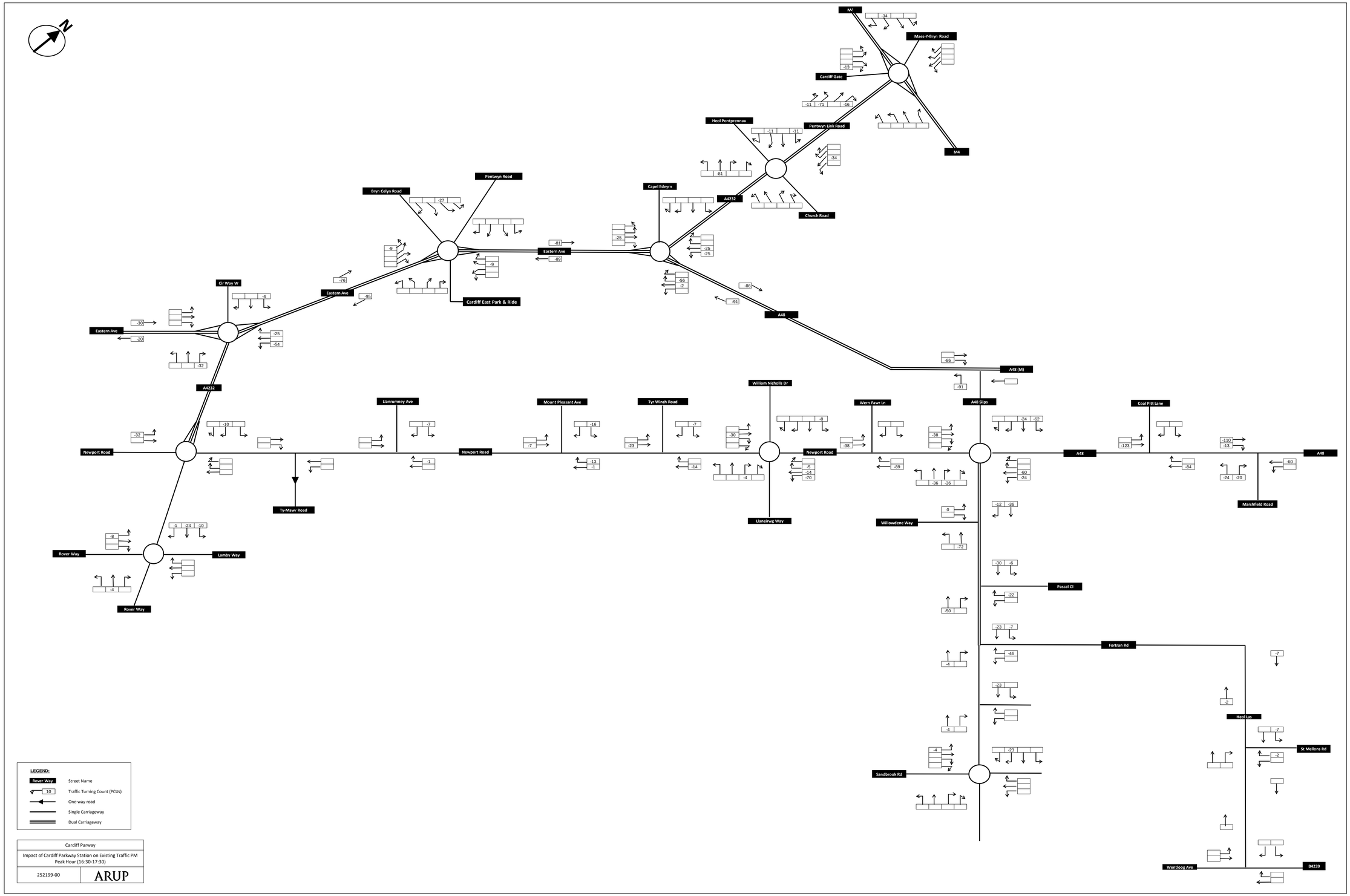
Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

Cardiff Parway

Impact of Cardiff Parkway Station on Existing Traffic AM Peak Hour (07:45-08:45)

252199-00

ARUP



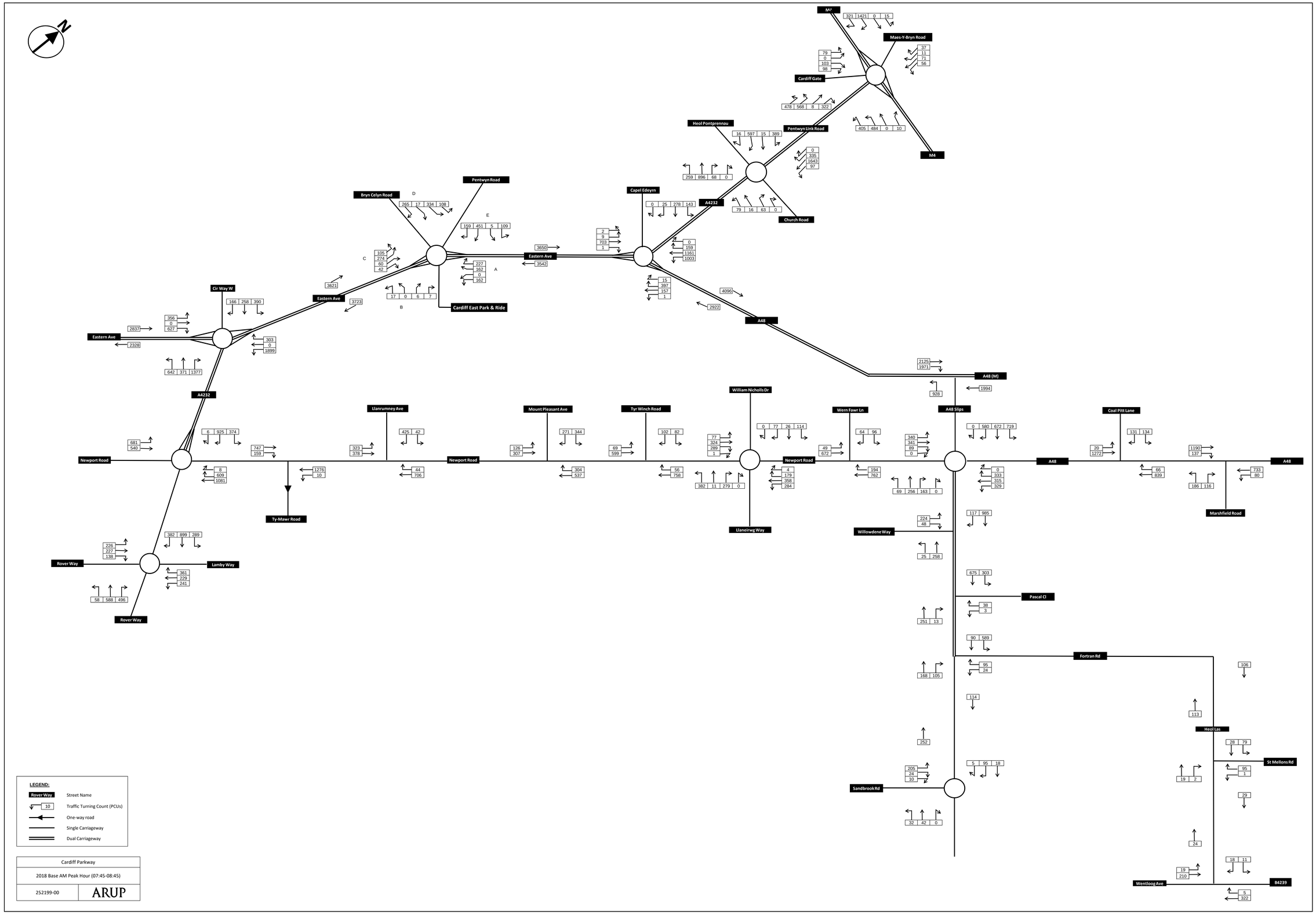
LEGEND:

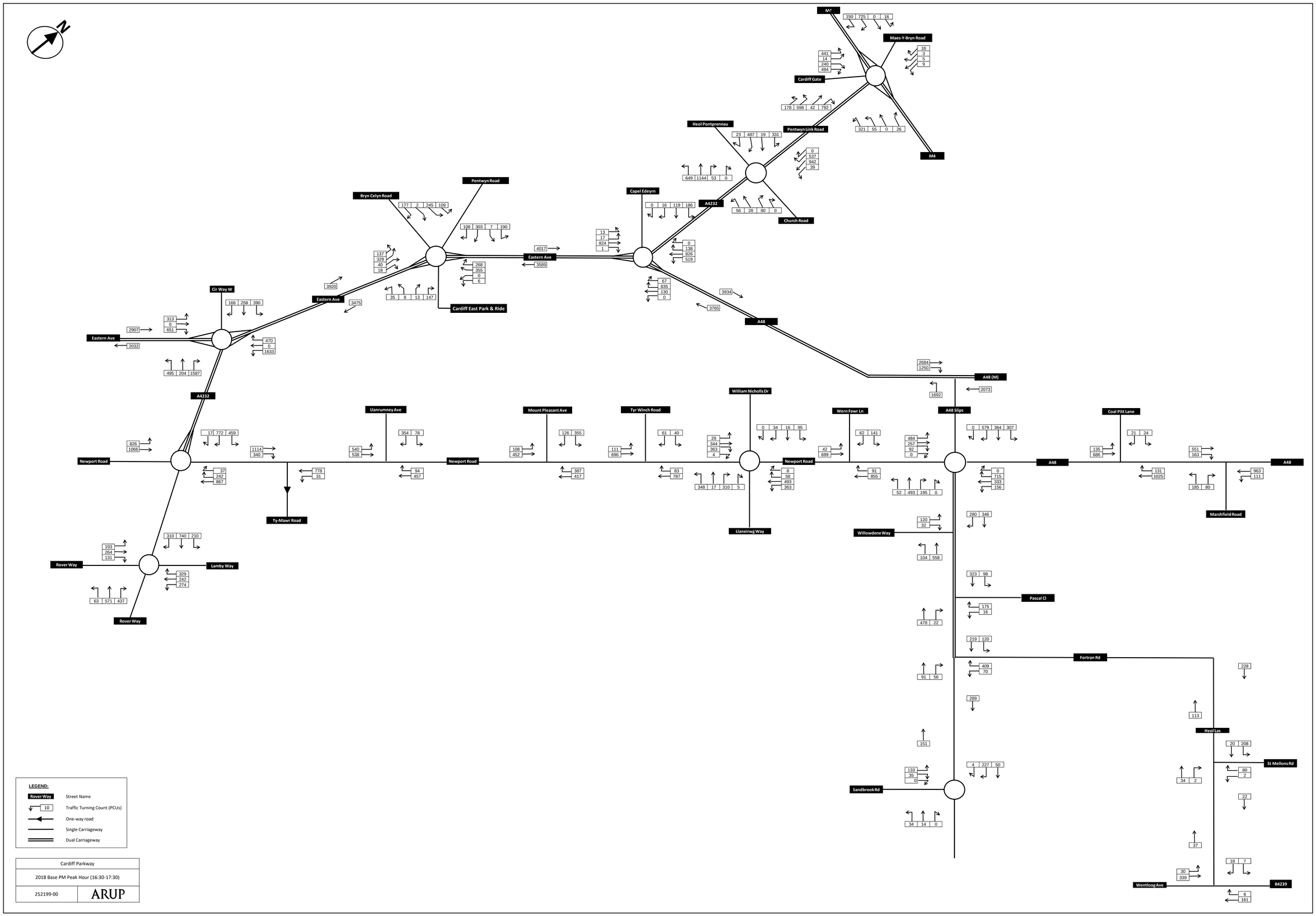
Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

Cardiff Parway	
Impact of Cardiff Parkway Station on Existing Traffic PM Peak Hour (16:30-17:30)	
252199-00	ARUP

Appendix P

Traffic Flows Diagrams

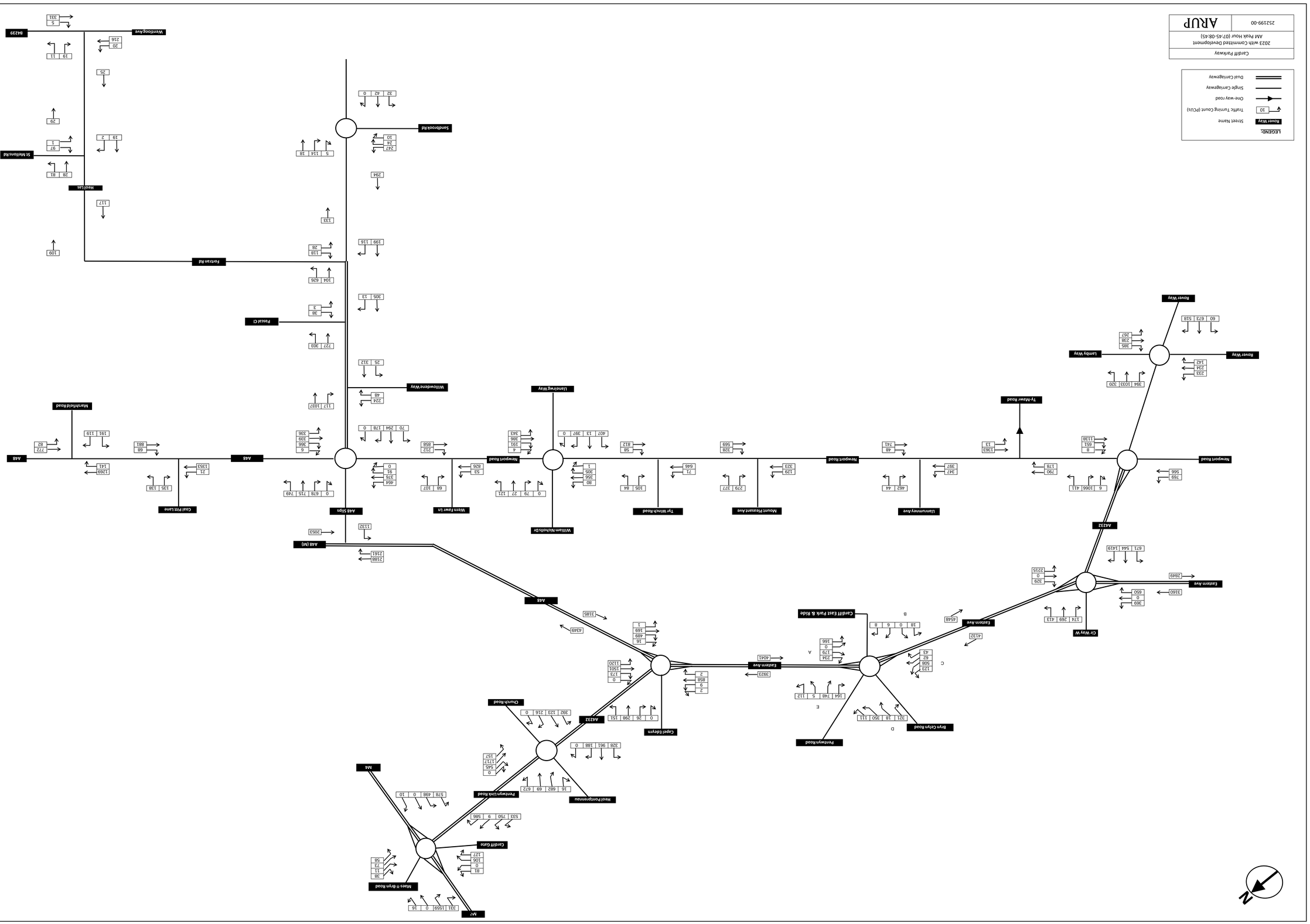

N
M4
321 1421 0 15
Maes-Y-Bryn Road
37 11 71 56
79 0 103 98
Cardiff Gate
478 568 8 322
405 484 0 10
Heol Pontprennau
Pentwyn Link Road
16 597 15 389
0 335 1643 97
259 896 68 0
79 16 63 0
Church Road
A4232
Capel Edeyrn
0 25 278 143
2 9 703 1
0 159 1161 1003
15 397 157 1
4096
2922
A48
Pentwyn Road
Bryn Celyn Road
D
265 17 334 108
E
159 451 5 109
105 274 60 42
C
3650
Eastern Ave
3542
227 162 0 162
A
3621
3723
17 0 6 7
B
Cardiff East Park & Ride
Cir Way W
166 258 390
Eastern Ave
2837
2328
356 0 627
303 0 1899
642 371 1377
A4232
2125 1971
A48 (M)
928
1994
A48 Slips
William Nicholls Dr
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
Wern Fawr Ln
Coal Pitt Lane
681 540
Newport Road
6 925 374
747 159
323 378
425 42
Newport Road
126 307
271 344
69 599
102 82
77 324 289 1
0 77 26 114
49 672
64 96
340 341 89 0
0 580 672 719
20 1272
131 134
1190 137
A48
A48
8 609 1081
1276 10
44 706
304 537
56 758
382 11 279 0
4 179 358 284
194 762
69 256 163 0
0 333 315 329
66 839
186 116
733 80
Ty-Mawr Road
Llaneirwg Way
Willowdene Way
Marshfield Road
224 48
117 985
25 258
382 899 289
226 227 138
Rover Way
Lamby Way
361 229 241
58 588 496
Rover Way
675 303
Pascal Cl
38 3
251 13
90 589
Fortran Rd
95 24
168 105
106
114
113
Heol Las
252
28 79
St Mellons Rd
95 1
5 95 18
205 24 10
Sandbrook Rd
19 2
29
32 42 0
24
18 11
19 210
Wentloog Ave
B4239
5 322
LEGEND:
Rover Way
Street Name
10
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriageway
Cardiff Parkway
2018 Base AM Peak Hour (07:45-08:45)
252199-00
ARUP



LEGEND:

Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

Cardiff Parkway	
2018 Base PM Peak Hour (16:30-17:30)	
252199-00	ARUP



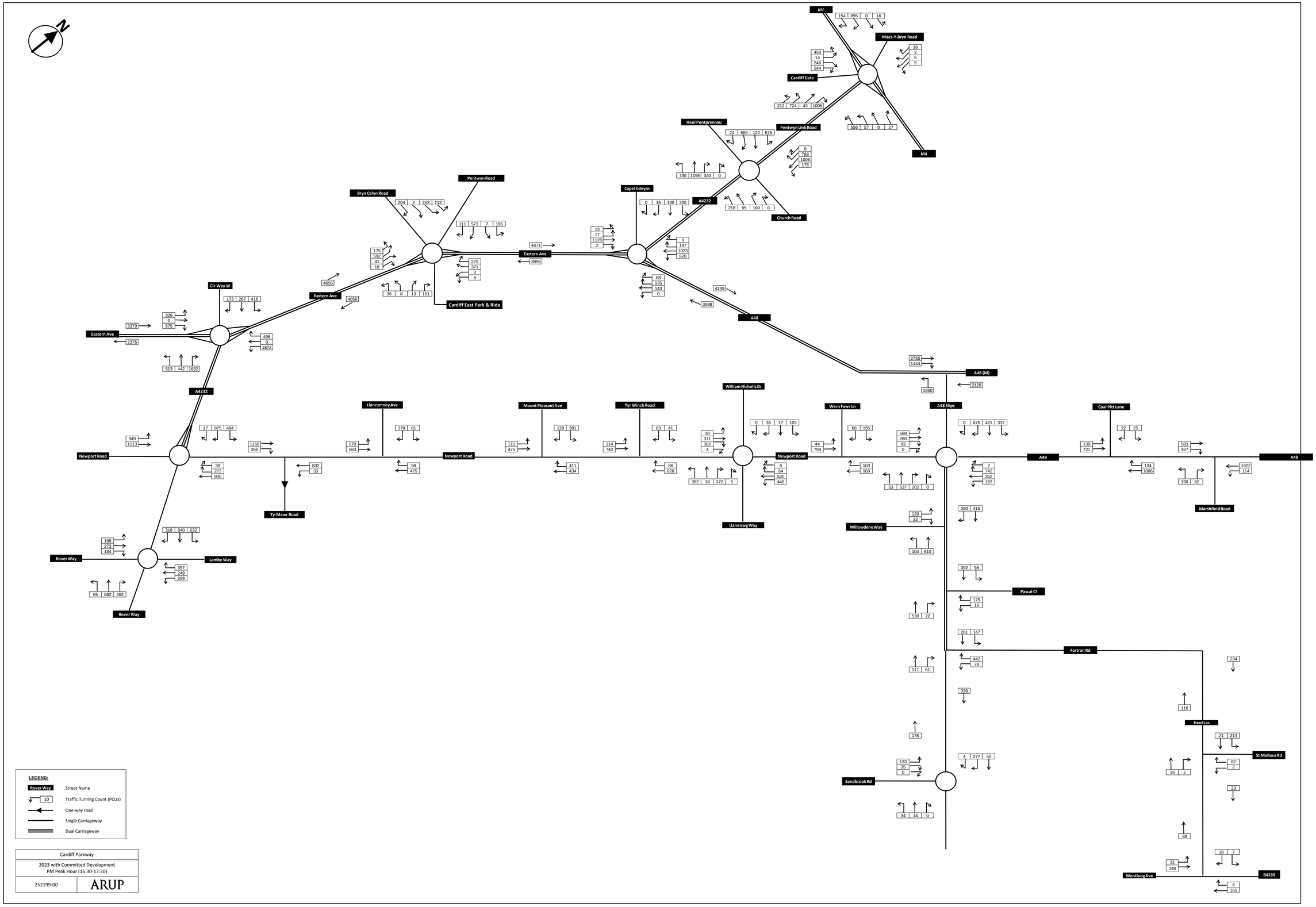
N
M4
Maes-Y-Bryn Road
Cardiff Gate
Pentwyn Link Road
M4
Heol Pontprennau
Church Road
A4232
Capel Edeyrn
Pentwyn Road
Bryn Celyn Road
D
E
C
A
B
Eastern Ave
Cardiff East Park & Ride
A48
A48 (M)
Cir Way W
Eastern Ave
Eastern Ave
A4232
Newport Road
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
William Nicholls Dr
Newport Road
Wern Fawr Ln
A48 Slips
Coal Pitt Lane
A48
A48
Marshfield Road
Ty-Mawr Road
Llaneirwg Way
Willowdene Way
Pascal Cl
Fortran Rd
Heol Las
St Mellons Rd
Sandbrook Rd
Wentloog Ave
B4239
Rover Way
Lamby Way
Rover Way
LEGEND:
Rover Way
Street Name
10
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriageway

Cardiff Parkway

2023 with Committed Development
AM Peak Hour (07:45-08:45)

252199-00

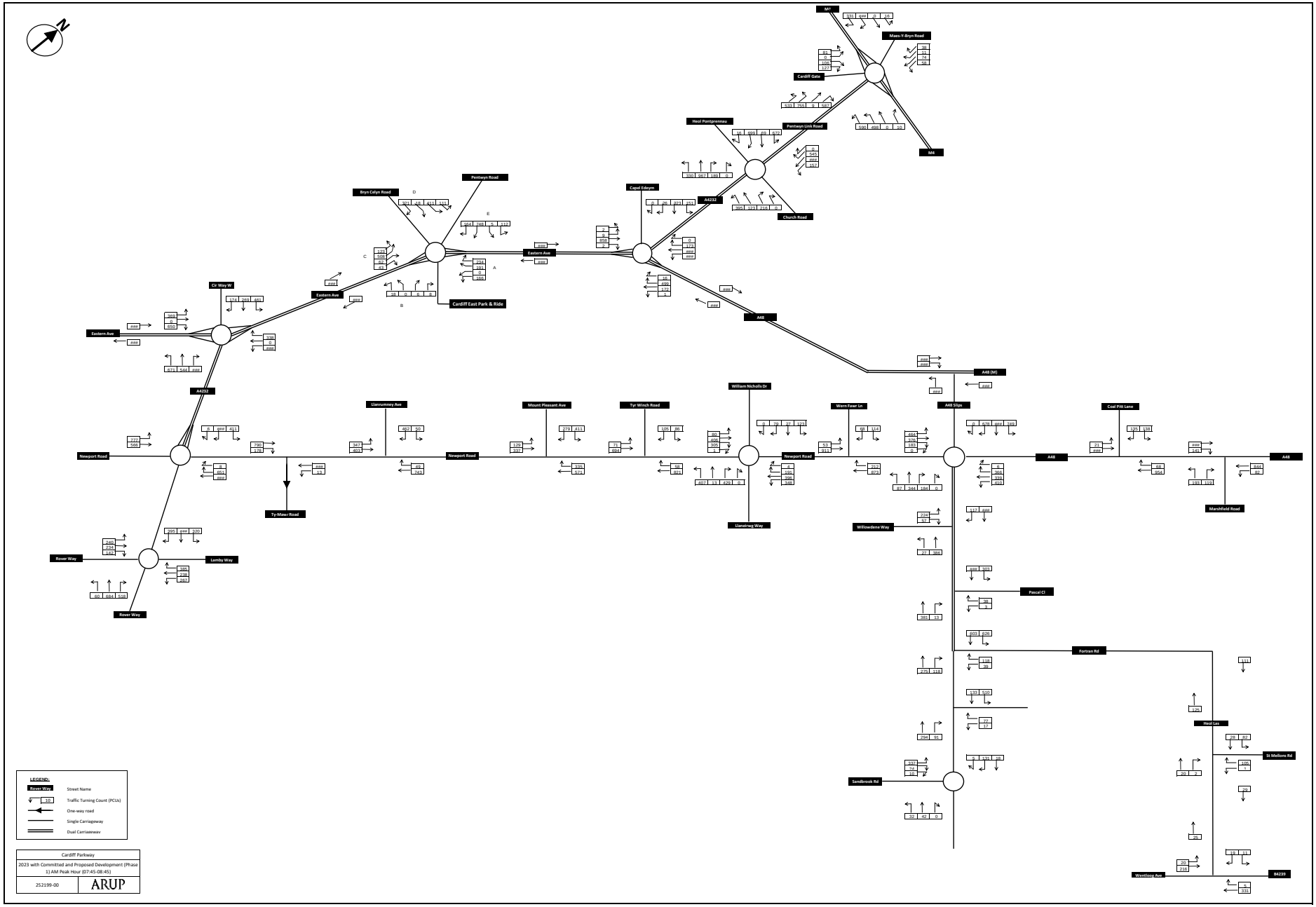
ARUP

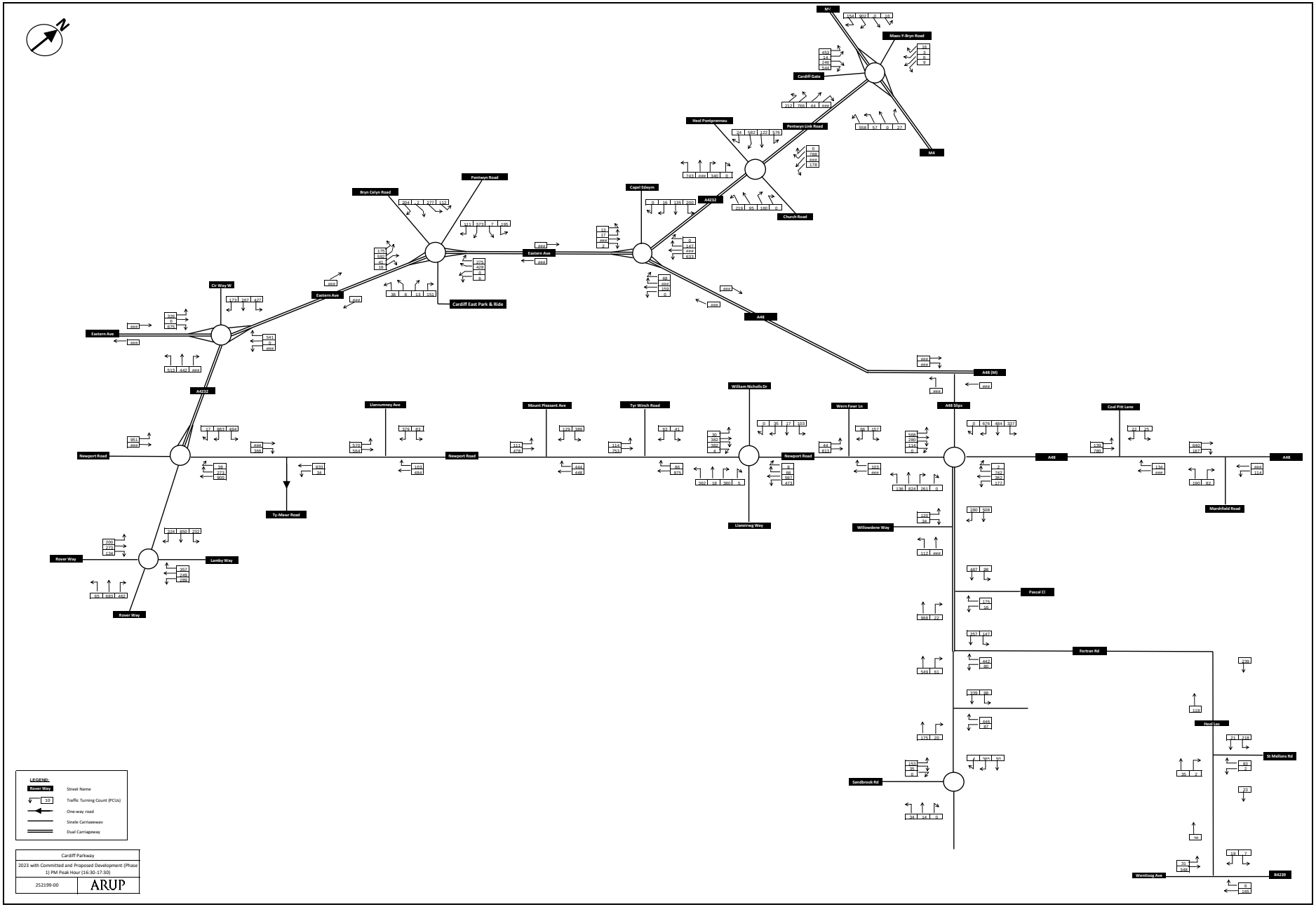


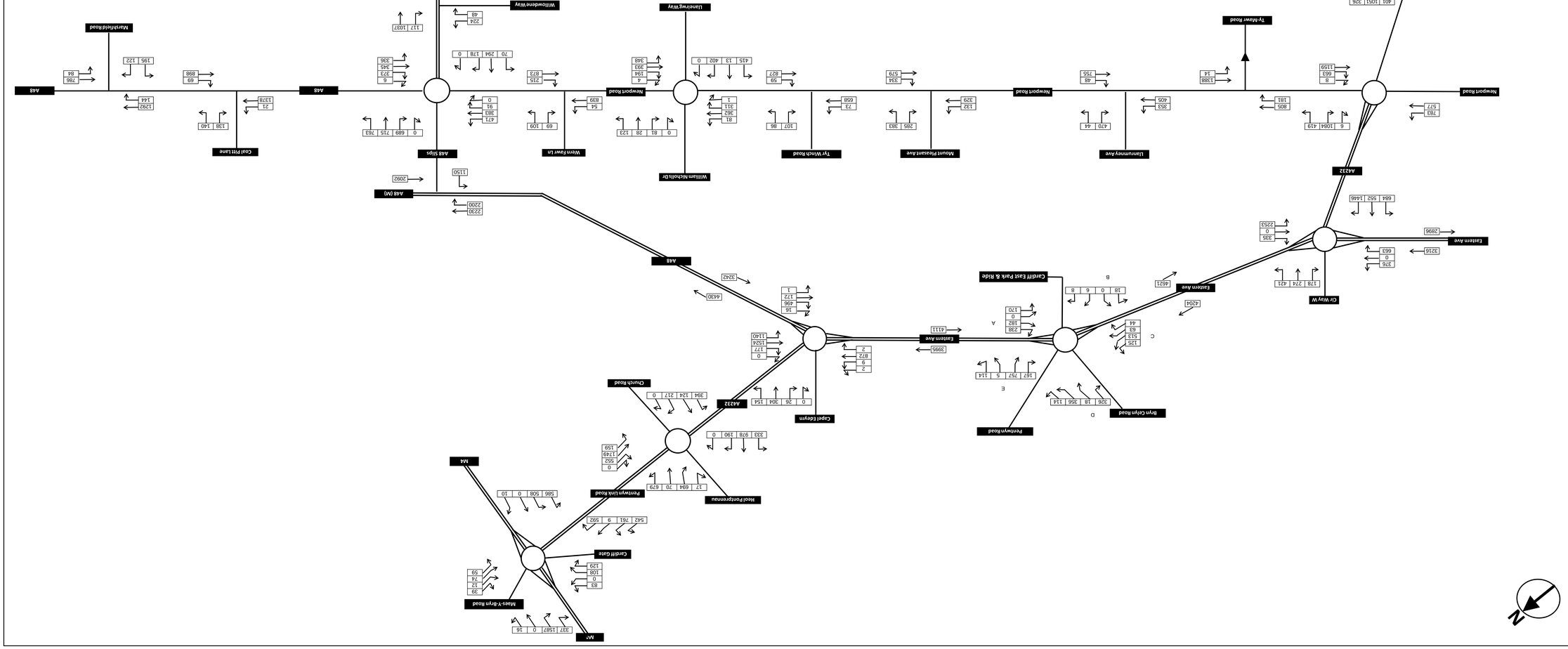
LEGEND:

Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

Cardiff Parkway	
2023 with Committed Development PM Peak Hour (16:30-17:30)	
252199-00	ARUP


N
A48
Maes-Y-Bryn Road
Cardiff Gate
Heol Pontprennau
Pentwyn Link Road
M4
Pentwyn Road
Bryn Celyn Road
Capel Edeyrn
A4232
Church Road
Eastern Ave
Cr Way W
Cardiff East Park & Ride
A48
A48 (M)
A4232
William Nicholls Dr
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
Worn Fawr Ln
A48 Slips
Coal Pitt Lane
Newport Road
Ty Mawr Road
Llanatwg Way
Willowdene Way
Marshfield Road
Rover Way
Lamby Way
Pascal Cl
Fortran Rd
Heol Las
St Mellons Rd
Sandbrook Rd
Wentloog Ave
B4239
LEGEND:
Street Name
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriageway
Cardiff Parkway
2023 with Committed and Proposed Development (Phase 1) AM Peak Hour (07:45-08:45)
252199-00
ARUP


M4
Maes-Y-Bryn Road
Cardiff Gate
Heol Pontprennau
Pentwyn Link Road
A4232
Church Road
Pentwyn Road
Bryn Celyn Road
Capel Edeyrn
Eastern Ave
Cr Way W
Cardiff East Park & Ride
A48
A48 (M)
A4232
A48 Slips
William Nicholls Dr
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
Warn Fawr Ln
Coal Pitt Lane
Newport Road
Ty-Mawr Road
Llanerwg Way
Willowdene Way
Marshfield Road
Rover Way
Lamby Way
Pascal Cl
Fortran Rd
Heol Las
St Mellons Rd
Sandbrook Rd
Wentloog Ave
B4239
LEGEND:
Rover Way
Street Name
10
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriageway
Cardiff Parkway
2023 with Committed and Proposed Development (Phase 1) PM Peak Hour (16:30-17:30)
252199-00
ARUP



N
M4
337 1587 0 16
Maes-Y-Bryn Road
39 12 74 59
83 0 108 129
Cardiff Gate
542 761 9 592
586 508 0 10
M4
Heol Pontprennau
Pentwyn Link Road
17 694 70 679
0 552 1749 159
333 978 190 0
394 124 217 0
Church Road
A4232
Capel Edeyrn
0 26 304 154
2 9 872 2
0 177 1524 1140
16 496 172 1
4430
3242
A48
2230 2200
A48 (M)
1150
2092
Pentwyn Road
Bryn Celyn Road
D
326 18 356 114
E
167 757 5 114
3995
Eastern Ave
4111
C
125 513 63 44
238 182 0 170
A
18 0 6 8
B
Cardiff East Park & Ride
4204
Eastern Ave
4621
Cir Way W
178 274 421
376 0 663
3216
Eastern Ave
2896
335 0 2253
684 552 1446
A4232
783 577
6 1084 419
Newport Road
8 663 1159
805 181
1388 14
Ty-Mawr Road
Llanrumney Ave
353 405
470 44
48 755
Newport Road
Mount Pleasant Ave
132 329
285 383
334 579
Tyr Winch Road
73 658
107 86
59 827
William Nicholls Dr
81 362 311 1
0 81 28 123
415 13 402 0
4 194 393 348
Newport Road
Llaneirwg Way
Wern Fawr Ln
54 839
69 109
215 873
A48 Slips
471 383 91 0
0 689 715 763
70 294 178 0
6 373 345 336
A48
Coal Pitt Lane
21 1378
138 140
69 898
1292 144
195 122
786 84
A48
Marshfield Road
224 48
Willowdene Way
117 1037
25 312
727 303
Pascal Cl
38 3
305 13
104 626
Fortran Rd
118 28
199 116
133
111
119
294
Heol Las
29 83
St Mellons Rd
99 1
20 2
30
247 24 10
5 114 18
Sandbrook Rd
32 42 0
25
19 12
20 220
Wentloog Ave
B4239
5 337
401 1051 326
238 238 145
Rover Way
Lamby Way
393 243 272
61 685 528
Rover Way

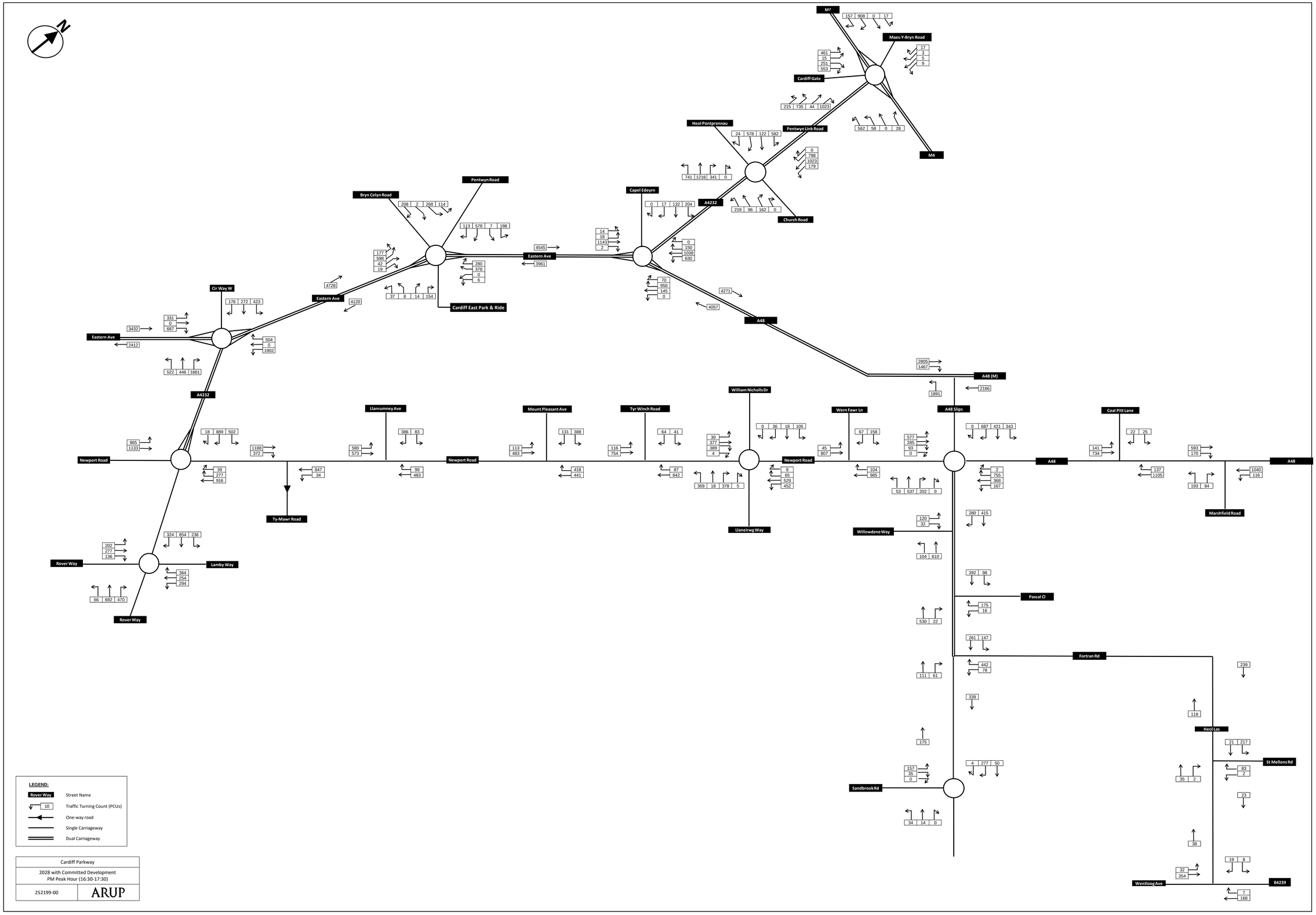
LEGEND:

Rover Way	Street Name
↲ 10	Traffic Turning Count (PCUs)
◀—	One-way road
—	Single Carriageway
═	Dual Carriageway

Cardiff Parkway

2028 with Committed Development
AM Peak Hour (07:45-08:45)

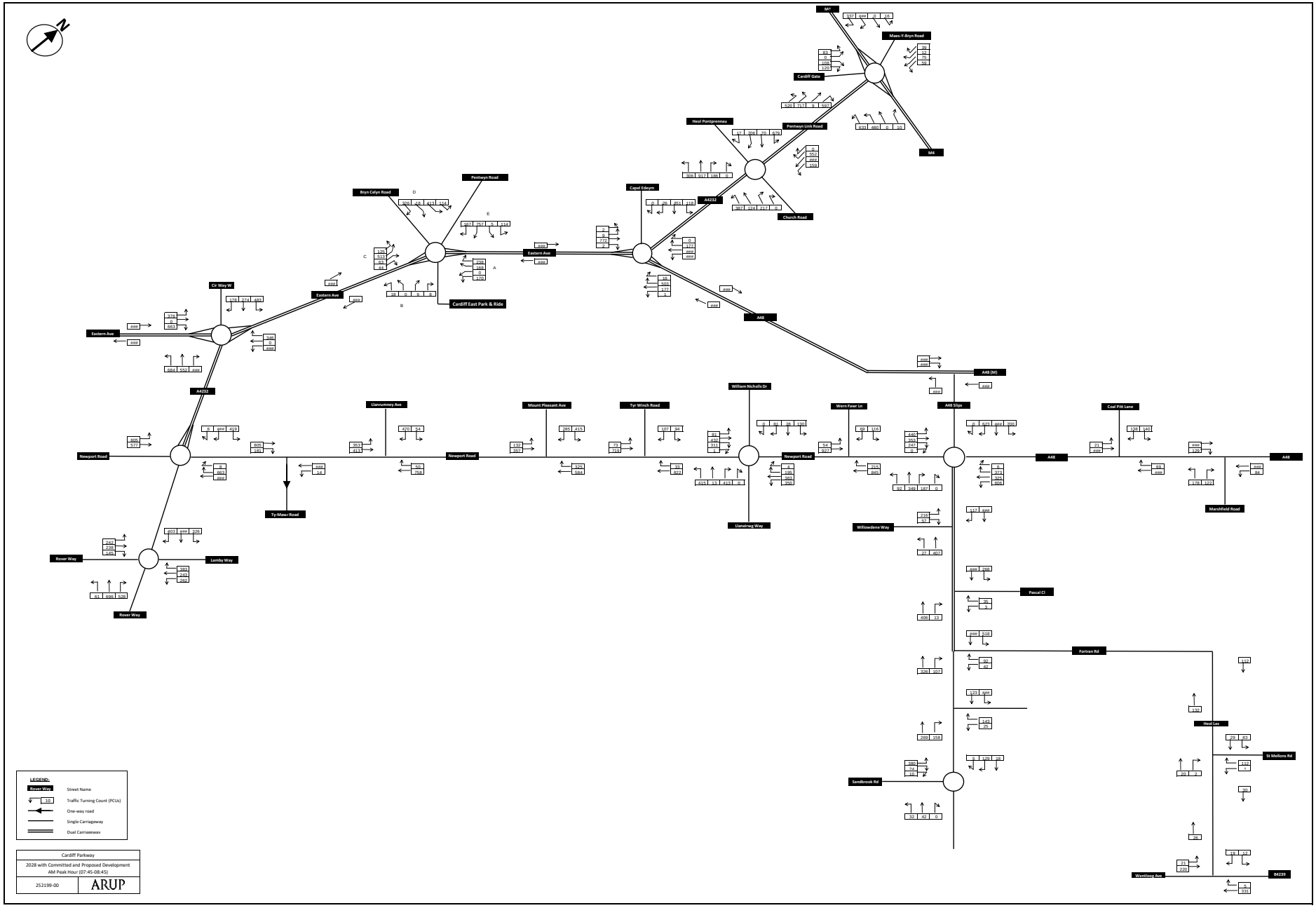
252199-00 ARUP



LEGEND:

Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

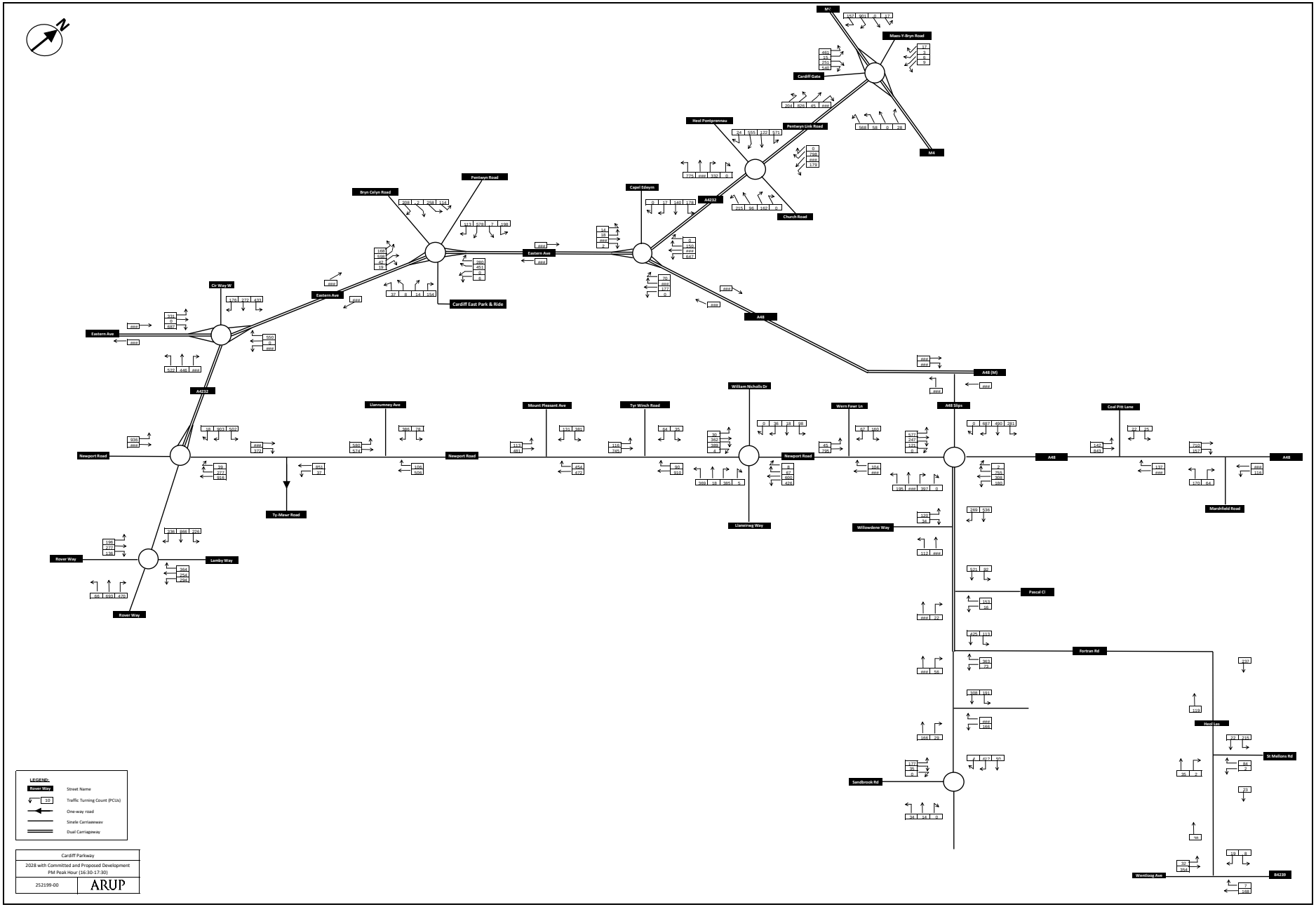
Cardiff Parkway	
2028 with Committed Development PM Peak Hour (16:30-17:30)	
252199-00	ARUP



LEGEND:

Rover Way	Street Name
10	Traffic Turning Count (PCUs)
	One-way road
	Single Carriageway
	Dual Carriageway

Cardiff Parkway	
2028 with Committed and Proposed Development AM Peak Hour (07:45-08:45)	
252199-00	ARUP


M4
Maes-Y-Bryn Road
Cardiff Gate
Heol Pontprennau
Pentwyn Link Road
A4232
Church Road
Capel Edeyrn
Bryn Celyn Road
Pentwyn Road
Eastern Ave
Cardiff East Park & Ride
A48
A48 (M)
A48 Slips
Cir Way W
A4232
Newport Road
Llanrumney Ave
Mount Pleasant Ave
Tyr Winch Road
William Nicholls Dr
Wern Fawr Ln
Coal Pitt Lane
Ty-Mawr Road
Llanerwg Way
Willowdene Way
Marshfield Road
Rover Way
Lamby Way
Pascal Cl
Fortran Rd
Heol Las
St Mellons Rd
Sandybrook Rd
Wentloog Ave
B4239
LEGEND:
Rover Way
Street Name
10
Traffic Turning Count (PCUs)
One-way road
Single Carriageway
Dual Carriageway
Cardiff Parkway
2028 with Committed and Proposed Development
PM Peak Hour (16:30-17:30)
252199-00
ARUP

Appendix Q

ARCADY Outputs

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

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Filename: 1_Sandbrook Rd_Cypress_Dr.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\ARCADY
Report generation date: 11/05/2020 12:34:58

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 with Committed Development, Weekday AM Peak
»2023 with Committed Development, Weekday PM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak
»2028 with Committed Development, Weekday AM Peak
»2028 with Committed Development, Weekday PM Peak
»2028 with Committed and Proposed Development, Weekday AM Peak
»2028 with Committed and Proposed Development, Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
1 - Cypress Drive	0.1	3.30	0.07	A	0.0	3.05	0.04	A
2 - Sandbrook Road	0.3	3.77	0.22	A	0.2	3.43	0.15	A
3 - Cypress Drive	0.1	2.81	0.09	A	0.2	3.13	0.18	A
	2023 with Committed Development							
1 - Cypress Drive	0.1	3.34	0.07	A	0.0	3.27	0.05	A
2 - Sandbrook Road	0.3	3.97	0.25	A	0.2	3.43	0.15	A
3 - Cypress Drive	0.1	2.86	0.11	A	0.3	3.50	0.23	A
	2023 with Committed Development and Proposed Development (Phase 1)							
1 - Cypress Drive	0.1	3.37	0.07	A	0.0	3.31	0.05	A
2 - Sandbrook Road	0.5	4.46	0.34	A	0.2	3.51	0.17	A
3 - Cypress Drive	0.1	2.90	0.12	A	0.4	3.92	0.31	A
	2028 with Committed Development							
1 - Cypress Drive	0.1	3.34	0.07	A	0.0	3.31	0.05	A
2 - Sandbrook Road	0.3	3.97	0.25	A	0.2	3.52	0.17	A
3 - Cypress Drive	0.1	2.86	0.11	A	0.3	3.56	0.24	A
	2028 with Committed and Proposed Development							

1 - Cypress Drive	0.1	3.37	0.07	A	0.0	3.35	0.05	A
2 - Sandbrook Road	0.6	4.73	0.37	A	0.2	3.60	0.19	A
3 - Cypress Drive	0.1	2.90	0.12	A	0.5	4.24	0.35	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	17/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Cypress Drive	
2	Sandbrook Road	
3	Cypress Drive	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Cypress Drive	3.66	5.26	5.1	9.0	22.7	37.0	
2 - Sandbrook Road	3.62	5.30	5.1	9.5	22.7	36.0	
3 - Cypress Drive	3.78	5.55	4.8	49.9	22.7	30.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cypress Drive	0.541	1237
2 - Sandbrook Road	0.546	1244
3 - Cypress Drive	0.617	1432

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)

D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	74	100.000
2 - Sandbrook Road		✓	238	100.000
3 - Cypress Drive		✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	**2 - Sandbrook Road**	**3 - Cypress Drive**
From	**1 - Cypress Drive**	0	32	42
	2 - Sandbrook Road	24	10	205
	3 - Cypress Drive	18	95	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	**2 - Sandbrook Road**	**3 - Cypress Drive**
From	**1 - Cypress Drive**	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.07	3.30	0.1	A
2 - Sandbrook Road	0.22	3.77	0.3	A
3 - Cypress Drive	0.09	2.81	0.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	83	1192	0.047	56	0.0	3.166	A
2 - Sandbrook Road	179	35	1225	0.146	179	0.2	3.439	A

3 - Cypress Drive	89	25	1417	0.063	89	0.1	2.711	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	99	1184	0.056	67	0.1	3.222	A
2 - Sandbrook Road	214	42	1221	0.175	214	0.2	3.574	A
3 - Cypress Drive	106	30	1414	0.075	106	0.1	2.753	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	121	1172	0.070	82	0.1	3.302	A
2 - Sandbrook Road	262	52	1216	0.216	262	0.3	3.774	A
3 - Cypress Drive	130	37	1409	0.092	130	0.1	2.813	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	121	1172	0.070	82	0.1	3.302	A
2 - Sandbrook Road	262	52	1216	0.216	262	0.3	3.774	A
3 - Cypress Drive	130	37	1409	0.092	130	0.1	2.814	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	99	1184	0.056	67	0.1	3.223	A
2 - Sandbrook Road	214	43	1221	0.175	214	0.2	3.579	A
3 - Cypress Drive	106	30	1413	0.075	106	0.1	2.756	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	83	1192	0.047	56	0.0	3.167	A
2 - Sandbrook Road	179	36	1225	0.146	180	0.2	3.443	A
3 - Cypress Drive	89	25	1417	0.063	89	0.1	2.711	A

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	48	100.000
2 - Sandbrook Road		✓	168	100.000
3 - Cypress Drive		✓	235	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	34	14
	2 - Sandbrook Road	35	0	133
	3 - Cypress Drive	227	4	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.04	3.05	0.0	A
2 - Sandbrook Road	0.15	3.43	0.2	A
3 - Cypress Drive	0.18	3.13	0.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	6	1234	0.029	36	0.0	3.004	A
2 - Sandbrook Road	126	14	1237	0.102	126	0.1	3.238	A
3 - Cypress Drive	177	26	1416	0.125	176	0.1	2.902	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	7	1233	0.035	43	0.0	3.023	A
2 - Sandbrook Road	151	16	1235	0.122	151	0.1	3.318	A
3 - Cypress Drive	211	32	1413	0.150	211	0.2	2.996	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	9	1232	0.043	52	0.0	3.050	A
2 - Sandbrook Road	185	20	1233	0.150	185	0.2	3.432	A
3 - Cypress Drive	259	39	1408	0.184	259	0.2	3.131	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	9	1232	0.043	52	0.0	3.050	A
2 - Sandbrook Road	185	20	1233	0.150	185	0.2	3.432	A
3 - Cypress Drive	259	39	1408	0.184	259	0.2	3.131	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	7	1233	0.035	43	0.0	3.025	A
2 - Sandbrook Road	151	16	1235	0.122	151	0.1	3.322	A
3 - Cypress Drive	211	32	1413	0.150	211	0.2	2.997	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	6	1234	0.029	36	0.0	3.004	A
2 - Sandbrook Road	126	14	1237	0.102	127	0.1	3.241	A
3 - Cypress Drive	177	27	1416	0.125	177	0.1	2.908	A

2023 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	74	100.000
2 - Sandbrook Road		✓	280	100.000
3 - Cypress Drive		✓	137	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	32	42
	2 - Sandbrook Road	24	10	247
	3 - Cypress Drive	18	114	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.07	3.34	0.1	A
2 - Sandbrook Road	0.25	3.97	0.3	A
3 - Cypress Drive	0.11	2.86	0.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	97	1185	0.047	56	0.0	3.188	A
2 - Sandbrook Road	211	35	1225	0.172	210	0.2	3.544	A
3 - Cypress Drive	103	25	1417	0.073	103	0.1	2.740	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	116	1174	0.057	67	0.1	3.249	A
2 - Sandbrook Road	252	42	1221	0.207	252	0.3	3.714	A
3 - Cypress Drive	124	30	1414	0.087	123	0.1	2.790	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	142	1160	0.071	82	0.1	3.337	A
2 - Sandbrook Road	309	52	1216	0.254	309	0.3	3.967	A
3 - Cypress Drive	151	37	1409	0.107	151	0.1	2.860	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	142	1160	0.071	82	0.1	3.337	A
2 - Sandbrook Road	309	52	1216	0.254	309	0.3	3.968	A
3 - Cypress Drive	151	37	1409	0.107	151	0.1	2.860	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	116	1174	0.057	67	0.1	3.252	A
2 - Sandbrook Road	252	43	1221	0.207	252	0.3	3.716	A
3 - Cypress Drive	124	30	1413	0.087	124	0.1	2.792	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	97	1184	0.047	56	0.0	3.191	A
2 - Sandbrook Road	211	36	1225	0.172	211	0.2	3.552	A
3 - Cypress Drive	103	25	1417	0.073	103	0.1	2.743	A

2023 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	48	100.000
2 - Sandbrook Road		✓	168	100.000
3 - Cypress Drive		✓	285	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	34	14
	2 - Sandbrook Road	0	133	35
	3 - Cypress Drive	277	4	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.05	3.27	0.0	A
2 - Sandbrook Road	0.15	3.43	0.2	A
3 - Cypress Drive	0.23	3.50	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	106	1180	0.030	36	0.0	3.146	A
2 - Sandbrook Road	127	14	1237	0.102	126	0.1	3.239	A
3 - Cypress Drive	215	100	1371	0.157	214	0.2	3.111	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	127	1169	0.037	43	0.0	3.197	A
2 - Sandbrook Road	151	16	1235	0.122	151	0.1	3.319	A
3 - Cypress Drive	257	119	1358	0.189	256	0.2	3.266	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

1 - Cypress Drive	52	155	1153	0.045	52	0.0	3.269	A
2 - Sandbrook Road	185	20	1233	0.150	185	0.2	3.433	A
3 - Cypress Drive	314	146	1342	0.234	314	0.3	3.502	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	155	1153	0.045	52	0.0	3.269	A
2 - Sandbrook Road	185	20	1233	0.150	185	0.2	3.433	A
3 - Cypress Drive	314	146	1342	0.234	314	0.3	3.502	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	127	1168	0.037	43	0.0	3.197	A
2 - Sandbrook Road	151	16	1235	0.122	151	0.1	3.323	A
3 - Cypress Drive	257	120	1358	0.189	257	0.2	3.268	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	106	1180	0.030	36	0.0	3.146	A
2 - Sandbrook Road	127	14	1237	0.102	127	0.1	3.245	A
3 - Cypress Drive	215	100	1370	0.157	215	0.2	3.118	A

2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.92	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	74	100.000
2 - Sandbrook Road		✓	371	100.000
3 - Cypress Drive		✓	154	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	32	42
	2 - Sandbrook Road	24	10	337
	3 - Cypress Drive	18	131	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.07	3.37	0.1	A
2 - Sandbrook Road	0.34	4.46	0.5	A
3 - Cypress Drive	0.12	2.90	0.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	110	1178	0.047	56	0.0	3.208	A
2 - Sandbrook Road	279	35	1225	0.228	278	0.3	3.797	A
3 - Cypress Drive	116	25	1417	0.082	116	0.1	2.768	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	131	1166	0.057	67	0.1	3.274	A
2 - Sandbrook Road	334	42	1221	0.273	333	0.4	4.054	A
3 - Cypress Drive	139	30	1414	0.098	139	0.1	2.823	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	161	1150	0.071	82	0.1	3.369	A
2 - Sandbrook Road	409	52	1216	0.336	408	0.5	4.453	A
3 - Cypress Drive	170	37	1409	0.121	170	0.1	2.904	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	161	1150	0.071	82	0.1	3.369	A
2 - Sandbrook Road	409	52	1216	0.336	408	0.5	4.458	A
3 - Cypress Drive	170	37	1409	0.121	170	0.1	2.904	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	131	1166	0.057	67	0.1	3.277	A
2 - Sandbrook Road	334	43	1221	0.273	334	0.4	4.060	A
3 - Cypress Drive	139	30	1413	0.098	139	0.1	2.826	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	110	1178	0.048	56	0.1	3.211	A
2 - Sandbrook Road	279	36	1225	0.228	280	0.3	3.809	A
3 - Cypress Drive	116	25	1416	0.082	116	0.1	2.768	A

2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	48	100.000
2 - Sandbrook Road		✓	188	100.000
3 - Cypress Drive		✓	373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	34	14
	2 - Sandbrook Road	0	153	35
	3 - Cypress Drive	365	4	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.05	3.31	0.0	A
2 - Sandbrook Road	0.17	3.51	0.2	A
3 - Cypress Drive	0.31	3.92	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	121	1172	0.031	36	0.0	3.168	A
2 - Sandbrook Road	142	14	1237	0.115	141	0.1	3.283	A
3 - Cypress Drive	281	115	1361	0.206	280	0.3	3.325	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	145	1159	0.037	43	0.0	3.224	A
2 - Sandbrook Road	169	16	1235	0.137	169	0.2	3.375	A
3 - Cypress Drive	335	137	1347	0.249	335	0.3	3.556	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	177	1141	0.046	52	0.0	3.305	A
2 - Sandbrook Road	207	20	1233	0.168	207	0.2	3.507	A
3 - Cypress Drive	411	168	1328	0.309	410	0.4	3.919	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	177	1141	0.046	52	0.0	3.305	A
2 - Sandbrook Road	207	20	1233	0.168	207	0.2	3.507	A

3 - Cypress Drive	411	168	1328	0.309	411	0.4	3.922	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	145	1159	0.037	43	0.0	3.225	A
2 - Sandbrook Road	169	16	1235	0.137	169	0.2	3.379	A
3 - Cypress Drive	335	138	1347	0.249	336	0.3	3.562	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	121	1171	0.031	36	0.0	3.169	A
2 - Sandbrook Road	142	14	1237	0.115	142	0.1	3.289	A
3 - Cypress Drive	281	115	1361	0.206	281	0.3	3.336	A

2028 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	74	100.000
2 - Sandbrook Road		✓	280	100.000
3 - Cypress Drive		✓	137	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	32	42
	2 - Sandbrook Road	24	10	247
	3 - Cypress Drive	18	114	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.07	3.34	0.1	A
2 - Sandbrook Road	0.25	3.97	0.3	A
3 - Cypress Drive	0.11	2.86	0.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	97	1185	0.047	56	0.0	3.188	A
2 - Sandbrook Road	211	35	1225	0.172	210	0.2	3.544	A
3 - Cypress Drive	103	25	1417	0.073	103	0.1	2.740	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	116	1174	0.057	67	0.1	3.249	A
2 - Sandbrook Road	252	42	1221	0.207	252	0.3	3.714	A
3 - Cypress Drive	124	30	1414	0.087	123	0.1	2.790	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	142	1160	0.071	82	0.1	3.337	A
2 - Sandbrook Road	309	52	1216	0.254	309	0.3	3.967	A
3 - Cypress Drive	151	37	1409	0.107	151	0.1	2.860	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	142	1160	0.071	82	0.1	3.337	A
2 - Sandbrook Road	309	52	1216	0.254	309	0.3	3.968	A
3 - Cypress Drive	151	37	1409	0.107	151	0.1	2.860	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	116	1174	0.057	67	0.1	3.252	A
2 - Sandbrook Road	252	43	1221	0.207	252	0.3	3.716	A
3 - Cypress Drive	124	30	1413	0.087	124	0.1	2.792	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	97	1184	0.047	56	0.0	3.191	A
2 - Sandbrook Road	211	36	1225	0.172	211	0.2	3.552	A
3 - Cypress Drive	103	25	1417	0.073	103	0.1	2.743	A

2028 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	48	100.000
2 - Sandbrook Road		✓	192	100.000
3 - Cypress Drive		✓	285	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	34	14
	2 - Sandbrook Road	0	157	35
	3 - Cypress Drive	277	4	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS

1 - Cypress Drive	0.05	3.31	0.0	A
2 - Sandbrook Road	0.17	3.52	0.2	A
3 - Cypress Drive	0.24	3.56	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	124	1170	0.031	36	0.0	3.173	A
2 - Sandbrook Road	145	14	1237	0.117	144	0.1	3.292	A
3 - Cypress Drive	215	118	1359	0.158	214	0.2	3.142	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	148	1157	0.037	43	0.0	3.230	A
2 - Sandbrook Road	173	16	1235	0.140	173	0.2	3.387	A
3 - Cypress Drive	257	141	1345	0.191	256	0.2	3.306	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	182	1139	0.046	52	0.0	3.312	A
2 - Sandbrook Road	212	20	1233	0.172	212	0.2	3.522	A
3 - Cypress Drive	314	173	1326	0.237	314	0.3	3.558	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	182	1139	0.046	52	0.0	3.313	A
2 - Sandbrook Road	212	20	1233	0.172	212	0.2	3.522	A
3 - Cypress Drive	314	173	1325	0.237	314	0.3	3.559	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	148	1157	0.037	43	0.0	3.233	A
2 - Sandbrook Road	173	16	1235	0.140	173	0.2	3.388	A
3 - Cypress Drive	257	141	1345	0.191	257	0.2	3.308	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	124	1170	0.031	36	0.0	3.174	A

2 - Sandbrook Road	145	14	1237	0.117	145	0.1	3.296	A
3 - Cypress Drive	215	118	1359	0.158	215	0.2	3.148	A

2028 with Committed and Proposed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	74	100.000
2 - Sandbrook Road		✓	413	100.000
3 - Cypress Drive		✓	153	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	32	42
	2 - Sandbrook Road	24	10	380
	3 - Cypress Drive	18	129	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.07	3.37	0.1	A
2 - Sandbrook Road	0.37	4.73	0.6	A
3 - Cypress Drive	0.12	2.90	0.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	108	1179	0.047	56	0.0	3.206	A
2 - Sandbrook Road	311	35	1225	0.254	310	0.3	3.928	A
3 - Cypress Drive	115	25	1417	0.081	114	0.1	2.764	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	130	1167	0.057	67	0.1	3.271	A
2 - Sandbrook Road	371	42	1221	0.304	371	0.4	4.233	A
3 - Cypress Drive	137	30	1414	0.097	137	0.1	2.819	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	159	1151	0.071	82	0.1	3.365	A
2 - Sandbrook Road	455	52	1216	0.374	454	0.6	4.722	A
3 - Cypress Drive	168	37	1409	0.119	168	0.1	2.899	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	82	159	1151	0.071	82	0.1	3.365	A
2 - Sandbrook Road	455	52	1216	0.374	455	0.6	4.730	A
3 - Cypress Drive	168	37	1409	0.119	168	0.1	2.899	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	67	130	1167	0.057	67	0.1	3.274	A
2 - Sandbrook Road	371	43	1221	0.304	372	0.4	4.242	A
3 - Cypress Drive	137	30	1413	0.097	137	0.1	2.820	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	56	109	1178	0.047	56	0.1	3.209	A
2 - Sandbrook Road	311	36	1225	0.254	311	0.3	3.942	A
3 - Cypress Drive	115	25	1416	0.081	115	0.1	2.767	A

2028 with Committed and Proposed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cypress Drive		✓	48	100.000
2 - Sandbrook Road		✓	212	100.000
3 - Cypress Drive		✓	420	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	34	14
	2 - Sandbrook Road	0	177	35
	3 - Cypress Drive	412	4	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Cypress Drive	2 - Sandbrook Road	3 - Cypress Drive
From	1 - Cypress Drive	0	0	0
	2 - Sandbrook Road	0	0	0
	3 - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Cypress Drive	0.05	3.35	0.0	A
2 - Sandbrook Road	0.19	3.60	0.2	A
3 - Cypress Drive	0.35	4.24	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	139	1162	0.031	36	0.0	3.195	A
2 - Sandbrook Road	160	14	1237	0.129	159	0.1	3.338	A
3 - Cypress Drive	316	133	1350	0.234	315	0.3	3.474	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	166	1147	0.037	43	0.0	3.259	A
2 - Sandbrook Road	191	16	1235	0.154	191	0.2	3.445	A
3 - Cypress Drive	377	159	1334	0.283	377	0.4	3.761	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	204	1127	0.047	52	0.0	3.349	A
2 - Sandbrook Road	234	20	1233	0.190	234	0.2	3.600	A
3 - Cypress Drive	462	195	1312	0.352	461	0.5	4.230	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	52	204	1127	0.047	52	0.0	3.349	A
2 - Sandbrook Road	234	20	1233	0.190	234	0.2	3.600	A
3 - Cypress Drive	462	195	1312	0.352	462	0.5	4.235	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	43	166	1147	0.037	43	0.0	3.259	A
2 - Sandbrook Road	191	16	1235	0.154	191	0.2	3.449	A
3 - Cypress Drive	377	159	1334	0.283	378	0.4	3.769	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cypress Drive	36	139	1162	0.031	36	0.0	3.197	A
2 - Sandbrook Road	160	14	1237	0.129	160	0.1	3.345	A
3 - Cypress Drive	316	133	1350	0.234	316	0.3	3.486	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 5_A48_Cypress Drive_Newport Road_CAL.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\ARCADY
Report generation date: 11/05/2020 12:39:38

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
A - A48	2.0	6.62	0.66	A	2.6	7.11	0.72	A
B - Cypress Drive	1.0	6.66	0.50	A	24.2	103.38	1.02	F
C - Newport Road	1.7	7.34	0.63	A	11.3	47.11	0.95	E
D - A48 Slips	6.0	10.30	0.86	B	1.2	3.03	0.54	A
	2023 + Com Dev							
A - A48	3.0	9.68	0.76	A	4.2	11.02	0.81	B
B - Cypress Drive	1.6	9.71	0.62	A	95.3	361.47	1.27	F
C - Newport Road	3.8	13.87	0.80	B	33.4	110.98	1.04	F
D - A48 Slips	15.9	25.87	0.95	D	1.6	3.61	0.61	A
	2023 + Com Dev + Dev							
A - A48	7.9	24.52	0.90	C	5.2	13.80	0.85	B
B - Cypress Drive	1.9	10.45	0.66	B	424.2	1550.08	1.95	F
C - Newport Road	7.9	26.99	0.90	D	37.2	120.46	1.04	F
D - A48 Slips	166.7	194.93	1.13	F	1.8	3.86	0.64	A
	2028 + Com Dev							
A - A48	3.2	10.22	0.77	B	4.6	12.04	0.83	B
B - Cypress Drive	1.7	10.15	0.63	B	105.4	405.30	1.31	F
C - Newport Road	4.2	14.91	0.81	B	38.1	123.32	1.05	F

D - A48 Slips	19.6	31.17	0.97	D	1.6	3.67	0.62	A
	2028 + Com Dev + Dev							
A - A48	98.5	266.10	1.14	F	4.7	12.62	0.83	B
B - Cypress Drive	1.5	7.64	0.60	A	1022.9	3274.81	2.69	F
C - Newport Road	8.1	27.10	0.90	D	36.5	120.69	1.04	F
D - A48 Slips	353.6	512.47	1.28	F	1.6	3.65	0.62	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	20/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Urszula.Suplicka
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	8.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A48	
B	Cypress Drive	
C	Newport Road	
D	A48 Slips	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A48	6.54	9.00	37.9	23.0	72.5	33.0	
B - Cypress Drive	6.86	8.90	12.8	40.0	72.5	33.0	
C - Newport Road	3.50	7.10	38.5	25.0	72.5	28.0	
D - A48 Slips	7.36	10.37	18.9	76.0	72.5	26.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
A - A48	✓	0.631	2550	0.631	2550

B - Cypress Drive	✓	0.638	1940	0.638	1940
C - Newport Road	✓	0.535	1780	0.535	1780
D - A48 Slips				0.704	2976

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	977	100.000
B - Cypress Drive		✓	488	100.000
C - Newport Road		✓	770	100.000
D - A48 Slips		✓	1971	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	**B - Cypress Drive**	**C - Newport Road**	**D - A48 Slips**
From	**A - A48**	0	329	315	333
	B - Cypress Drive	163	0	69	256
	C - Newport Road	341	89	0	340
	D - A48 Slips	719	672	580	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	**B - Cypress Drive**	**C - Newport Road**	**D - A48 Slips**
From	**A - A48**	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.66	6.62	2.0	A
B - Cypress Drive	0.50	6.66	1.0	A

C - Newport Road	0.63	7.34	1.7	A
D - A48 Slips	0.86	10.30	6.0	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	735	1006	1915	0.384	733	0.6	3.038	A
B - Cypress Drive	367	921	1352	0.272	366	0.4	3.645	A
C - Newport Road	579	563	1479	0.392	577	0.6	3.981	A
D - A48 Slips	1484	444	2663	0.557	1479	1.2	3.028	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	878	1203	1791	0.490	877	1.0	3.932	A
B - Cypress Drive	438	1102	1237	0.354	438	0.5	4.500	A
C - Newport Road	692	674	1419	0.487	691	0.9	4.933	A
D - A48 Slips	1772	532	2601	0.681	1769	2.1	4.304	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1075	1467	1624	0.662	1071	1.9	6.463	A
B - Cypress Drive	537	1345	1082	0.496	535	1.0	6.585	A
C - Newport Road	847	824	1339	0.633	844	1.7	7.235	A
D - A48 Slips	2170	650	2518	0.862	2156	5.8	9.563	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1075	1476	1619	0.664	1075	2.0	6.616	A
B - Cypress Drive	537	1351	1078	0.498	537	1.0	6.656	A
C - Newport Road	847	827	1338	0.634	847	1.7	7.339	A
D - A48 Slips	2170	652	2517	0.862	2169	6.0	10.299	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	878	1216	1783	0.492	882	1.0	4.011	A
B - Cypress Drive	438	1111	1231	0.356	440	0.6	4.559	A
C - Newport Road	692	678	1417	0.488	695	1.0	5.003	A
D - A48 Slips	1772	535	2599	0.682	1787	2.2	4.515	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	735	1012	1911	0.385	737	0.6	3.067	A

B - Cypress Drive	367	926	1349	0.272	368	0.4	3.671	A
C - Newport Road	579	567	1477	0.392	581	0.7	4.022	A
D - A48 Slips	1484	447	2661	0.558	1488	1.3	3.078	A

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	31.80	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1205	100.000
B - Cypress Drive		✓	740	100.000
C - Newport Road		✓	833	100.000
D - A48 Slips		✓	1250	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	156	333	715
	B - Cypress Drive	195	0	52	493
	C - Newport Road	257	92	0	484
	D - A48 Slips	307	364	579	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.72	7.11	2.6	A
B - Cypress Drive	1.02	103.38	24.2	F
C - Newport Road	0.95	47.11	11.3	E
D - A48 Slips	0.54	3.03	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	907	777	2060	0.440	904	0.8	3.107	A
B - Cypress Drive	557	1221	1161	0.480	553	0.9	5.890	A
C - Newport Road	627	1051	1218	0.515	623	1.0	6.010	A
D - A48 Slips	941	407	2689	0.350	939	0.5	2.054	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1083	929	1963	0.552	1081	1.2	4.071	A
B - Cypress Drive	665	1461	1008	0.660	661	1.9	10.265	B
C - Newport Road	749	1257	1108	0.676	745	2.0	9.816	A
D - A48 Slips	1124	486	2633	0.427	1123	0.7	2.382	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1326	1135	1834	0.723	1321	2.5	6.952	A
B - Cypress Drive	814	1786	800	1.017	759	15.8	56.594	F
C - Newport Road	917	1490	983	0.933	890	8.8	32.133	D
D - A48 Slips	1376	573	2573	0.535	1375	1.1	3.002	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1326	1139	1832	0.724	1326	2.6	7.115	A
B - Cypress Drive	814	1792	797	1.022	781	24.2	103.380	F
C - Newport Road	917	1513	970	0.945	907	11.3	47.111	E
D - A48 Slips	1376	586	2563	0.537	1376	1.2	3.032	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1083	936	1960	0.553	1088	1.2	4.157	A
B - Cypress Drive	665	1468	1003	0.663	753	2.1	19.873	C
C - Newport Road	749	1347	1060	0.707	784	2.5	14.597	B
D - A48 Slips	1124	527	2605	0.431	1125	0.8	2.435	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	907	781	2057	0.441	909	0.8	3.140	A
B - Cypress Drive	557	1227	1157	0.481	561	0.9	6.085	A
C - Newport Road	627	1061	1212	0.517	633	1.1	6.275	A
D - A48 Slips	941	413	2685	0.351	942	0.5	2.067	A

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	17.96	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1047	100.000
B - Cypress Drive		✓	542	100.000
C - Newport Road		✓	931	100.000
D - A48 Slips		✓	2142	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	6	336	339	366
	B - Cypress Drive	178	0	70	294
	C - Newport Road	376	91	0	464
	D - A48 Slips	749	715	678	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.76	9.68	3.0	A
B - Cypress Drive	0.62	9.71	1.6	A
C - Newport Road	0.80	13.87	3.8	B

D - A48 Slips	0.95	25.87	15.9	D

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	788	1113	1848	0.427	785	0.7	3.377	A
B - Cypress Drive	408	1042	1275	0.320	406	0.5	4.133	A
C - Newport Road	701	633	1441	0.486	697	0.9	4.815	A
D - A48 Slips	1612	488	2633	0.612	1606	1.6	3.486	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	941	1330	1711	0.550	939	1.2	4.656	A
B - Cypress Drive	487	1246	1145	0.425	486	0.7	5.451	A
C - Newport Road	837	757	1375	0.609	835	1.5	6.637	A
D - A48 Slips	1925	584	2565	0.751	1920	2.9	5.533	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1153	1605	1537	0.750	1146	2.9	9.055	A
B - Cypress Drive	596	1511	976	0.611	593	1.5	9.333	A
C - Newport Road	1025	924	1286	0.798	1017	3.7	12.995	B
D - A48 Slips	2358	712	2475	0.953	2316	13.6	18.964	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1153	1628	1523	0.757	1152	3.0	9.677	A
B - Cypress Drive	596	1526	966	0.617	596	1.6	9.712	A
C - Newport Road	1025	929	1283	0.799	1025	3.8	13.867	B
D - A48 Slips	2358	717	2471	0.954	2348	15.9	25.874	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	941	1368	1687	0.558	948	1.3	4.921	A
B - Cypress Drive	487	1270	1130	0.431	490	0.8	5.655	A
C - Newport Road	837	764	1371	0.611	846	1.6	6.969	A
D - A48 Slips	1925	591	2560	0.752	1977	3.1	6.700	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	788	1121	1842	0.428	790	0.8	3.430	A
B - Cypress Drive	408	1049	1271	0.321	409	0.5	4.184	A

C - Newport Road	701	637	1439	0.487	704	1.0	4.913	A
D - A48 Slips	1612	492	2630	0.613	1618	1.6	3.580	A

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	92.30	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1273	100.000
B - Cypress Drive		✓	792	100.000
C - Newport Road		✓	941	100.000
D - A48 Slips		✓	1434	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	2	167	362	742
	B - Cypress Drive	202	0	53	537
	C - Newport Road	280	93	0	568
	D - A48 Slips	337	421	676	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.81	11.02	4.2	B
B - Cypress Drive	1.27	361.47	95.3	F
C - Newport Road	1.04	110.98	33.4	F
D - A48 Slips	0.61	3.61	1.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	958	894	1986	0.482	955	0.9	3.476	A
B - Cypress Drive	596	1337	1087	0.548	591	1.2	7.217	A
C - Newport Road	708	1110	1186	0.597	702	1.5	7.357	A
D - A48 Slips	1080	431	2673	0.404	1077	0.7	2.252	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1144	1068	1876	0.610	1142	1.5	4.888	A
B - Cypress Drive	712	1599	920	0.774	704	3.2	16.109	C
C - Newport Road	846	1324	1071	0.789	838	3.5	14.899	B
D - A48 Slips	1289	513	2615	0.493	1288	1.0	2.711	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1401	1302	1728	0.811	1391	4.0	10.388	B
B - Cypress Drive	872	1952	695	1.255	687	49.4	151.910	F
C - Newport Road	1036	1454	1002	1.034	966	20.9	58.784	F
D - A48 Slips	1579	560	2582	0.612	1577	1.6	3.573	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1401	1306	1726	0.812	1401	4.2	11.022	B
B - Cypress Drive	872	1961	689	1.266	688	95.3	361.474	F
C - Newport Road	1036	1461	998	1.038	986	33.4	110.981	F
D - A48 Slips	1579	568	2576	0.613	1579	1.6	3.611	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1144	1081	1868	0.613	1155	1.6	5.117	A
B - Cypress Drive	712	1612	912	0.781	902	47.7	283.685	F
C - Newport Road	846	1517	968	0.873	939	10.1	89.463	F
D - A48 Slips	1289	604	2551	0.505	1292	1.0	2.863	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	958	900	1982	0.484	961	0.9	3.534	A
B - Cypress Drive	596	1344	1082	0.551	782	1.3	23.483	C
C - Newport Road	708	1291	1089	0.650	741	1.9	11.286	B
D - A48 Slips	1080	494	2628	0.411	1081	0.7	2.329	A

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	103.70	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1121	100.000
B - Cypress Drive		✓	615	100.000
C - Newport Road		✓	1024	100.000
D - A48 Slips		✓	2463	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	6	410	339	366
	B - Cypress Drive	184	0	87	344
	C - Newport Road	376	183	0	464
	D - A48 Slips	749	1036	678	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.90	24.52	7.9	C
B - Cypress Drive	0.66	10.45	1.9	B

C - Newport Road	0.90	26.99	7.9	D
D - A48 Slips	1.13	194.93	166.7	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	844	1421	1654	0.510	840	1.0	4.402	A
B - Cypress Drive	463	1040	1276	0.363	461	0.6	4.403	A
C - Newport Road	771	675	1419	0.543	766	1.2	5.473	A
D - A48 Slips	1854	561	2581	0.718	1844	2.5	4.823	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1008	1693	1482	0.680	1004	2.1	7.459	A
B - Cypress Drive	553	1241	1148	0.482	552	0.9	6.021	A
C - Newport Road	920	807	1348	0.683	917	2.1	8.270	A
D - A48 Slips	2214	672	2503	0.884	2196	6.9	11.138	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1234	1861	1376	0.897	1214	7.1	20.146	C
B - Cypress Drive	677	1428	1029	0.658	674	1.9	10.022	B
C - Newport Road	1127	982	1255	0.898	1107	7.1	21.931	C
D - A48 Slips	2711	813	2403	1.128	2389	87.6	78.177	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1234	1868	1371	0.900	1231	7.9	24.522	C
B - Cypress Drive	677	1440	1021	0.663	677	1.9	10.451	B
C - Newport Road	1127	990	1250	0.902	1124	7.9	26.987	D
D - A48 Slips	2711	823	2396	1.132	2395	166.7	194.488	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1008	1893	1356	0.743	1027	3.0	11.558	B
B - Cypress Drive	553	1334	1089	0.508	557	1.0	6.803	A
C - Newport Road	920	819	1342	0.686	943	2.2	9.517	A
D - A48 Slips	2214	688	2492	0.888	2477	100.9	194.927	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	844	1703	1476	0.572	851	1.4	5.817	A
B - Cypress Drive	463	1158	1201	0.386	465	0.6	4.901	A
C - Newport Road	771	682	1415	0.545	775	1.2	5.656	A
D - A48 Slips	1854	567	2577	0.720	2247	2.7	34.434	D

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	409.50	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1282	100.000
B - Cypress Drive		✓	1221	100.000
C - Newport Road		✓	961	100.000

D - A48 Slips		✓	1497	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	**B - Cypress Drive**	**C - Newport Road**	**D - A48 Slips**
From	**A - A48**	2	177	362	742
	B - Cypress Drive	261	0	136	824
	C - Newport Road	280	114	0	568
	D - A48 Slips	337	484	676	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	**B - Cypress Drive**	**C - Newport Road**	**D - A48 Slips**
From	**A - A48**	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.85	13.80	5.2	B
B - Cypress Drive	1.95	1550.08	424.2	F
C - Newport Road	1.04	120.46	37.2	F
D - A48 Slips	0.64	3.86	1.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	965	955	1947	0.496	962	1.0	3.637	A
B - Cypress Drive	919	1337	1087	0.845	900	4.8	17.735	C
C - Newport Road	724	1357	1054	0.687	715	2.1	10.389	B
D - A48 Slips	1127	487	2633	0.428	1124	0.7	2.379	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1153	1142	1829	0.630	1150	1.7	5.277	A
B - Cypress Drive	1097	1599	920	1.193	911	51.5	130.292	F
C - Newport Road	864	1476	990	0.873	850	5.7	23.528	C
D - A48 Slips	1346	544	2593	0.519	1344	1.1	2.881	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1412	1392	1672	0.844	1399	5.0	12.609	B
B - Cypress Drive	1344	1949	696	1.930	696	213.5	693.659	F
C - Newport Road	1058	1430	1015	1.043	987	23.6	66.891	F
D - A48 Slips	1648	555	2585	0.637	1645	1.7	3.819	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1412	1396	1669	0.846	1411	5.2	13.801	B
B - Cypress Drive	1344	1961	689	1.951	689	377.3	1550.078	F
C - Newport Road	1058	1431	1015	1.043	1004	37.2	120.458	F
D - A48 Slips	1648	561	2581	0.638	1648	1.8	3.856	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1153	1159	1819	0.634	1167	1.8	5.634	A
B - Cypress Drive	1097	1615	910	1.206	910	424.2	1480.852	F
C - Newport Road	864	1485	985	0.877	964	12.2	100.427	F
D - A48 Slips	1346	591	2560	0.526	1348	1.1	2.976	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	965	964	1942	0.497	968	1.0	3.709	A
B - Cypress Drive	919	1345	1082	0.849	1080	384.1	1347.864	F
C - Newport Road	724	1521	966	0.749	760	3.2	20.006	C
D - A48 Slips	1127	543	2594	0.434	1128	0.8	2.460	A

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	20.79	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1060	100.000
B - Cypress Drive		✓	542	100.000
C - Newport Road		✓	945	100.000
D - A48 Slips		✓	2167	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	**B - Cypress Drive**	**C - Newport Road**	**D - A48 Slips**
From	**A - A48**	6	336	345	373
	B - Cypress Drive	178	0	70	294
	C - Newport Road	383	91	0	471
	D - A48 Slips	763	715	689	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.77	10.22	3.2	B
B - Cypress Drive	0.63	10.15	1.7	B
C - Newport Road	0.81	14.91	4.2	B
D - A48 Slips	0.97	31.17	19.6	D

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	798	1121	1842	0.433	795	0.8	3.426	A
B - Cypress Drive	408	1060	1264	0.323	406	0.5	4.187	A
C - Newport Road	711	638	1439	0.494	707	1.0	4.897	A
D - A48 Slips	1632	493	2629	0.621	1625	1.6	3.563	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	953	1340	1704	0.559	951	1.3	4.765	A
B - Cypress Drive	487	1267	1131	0.430	486	0.7	5.567	A
C - Newport Road	849	763	1372	0.619	847	1.6	6.826	A
D - A48 Slips	1948	590	2561	0.761	1943	3.1	5.769	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1167	1612	1533	0.761	1160	3.1	9.474	A
B - Cypress Drive	596	1535	961	0.621	593	1.6	9.703	A
C - Newport Road	1040	931	1282	0.812	1031	4.0	13.836	B
D - A48 Slips	2386	718	2470	0.966	2335	15.9	21.380	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1167	1637	1517	0.769	1166	3.2	10.218	B
B - Cypress Drive	596	1551	950	0.627	596	1.7	10.146	B
C - Newport Road	1040	936	1279	0.813	1040	4.2	14.914	B
D - A48 Slips	2386	724	2466	0.968	2372	19.6	31.174	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	953	1388	1674	0.569	960	1.3	5.092	A
B - Cypress Drive	487	1297	1113	0.438	490	0.8	5.816	A
C - Newport Road	849	770	1368	0.621	859	1.7	7.216	A
D - A48 Slips	1948	598	2555	0.763	2014	3.3	7.433	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	798	1130	1837	0.434	800	0.8	3.482	A
B - Cypress Drive	408	1068	1259	0.324	409	0.5	4.242	A
C - Newport Road	711	642	1436	0.495	714	1.0	5.002	A
D - A48 Slips	1632	497	2626	0.621	1638	1.7	3.671	A

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	102.35	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1292	100.000
B - Cypress Drive		✓	792	100.000
C - Newport Road		✓	954	100.000
D - A48 Slips		✓	1450	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	2	167	368	755
	B - Cypress Drive	202	0	53	537
	C - Newport Road	285	93	0	577
	D - A48 Slips	343	421	687	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.83	12.04	4.6	B
B - Cypress Drive	1.31	405.30	105.4	F
C - Newport Road	1.05	123.32	38.1	F
D - A48 Slips	0.62	3.67	1.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	973	901	1981	0.491	969	1.0	3.543	A
B - Cypress Drive	596	1359	1073	0.556	591	1.2	7.401	A
C - Newport Road	718	1120	1181	0.608	712	1.5	7.587	A
D - A48 Slips	1092	434	2670	0.409	1089	0.7	2.273	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1162	1078	1870	0.621	1159	1.6	5.044	A
B - Cypress Drive	712	1626	903	0.788	703	3.4	17.246	C
C - Newport Road	858	1335	1066	0.805	849	3.8	15.972	C
D - A48 Slips	1304	517	2612	0.499	1303	1.0	2.747	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1423	1313	1722	0.826	1411	4.4	11.215	B
B - Cypress Drive	872	1984	675	1.292	668	54.4	169.664	F
C - Newport Road	1051	1450	1004	1.046	973	23.3	63.510	F
D - A48 Slips	1597	557	2584	0.618	1595	1.6	3.631	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1423	1316	1719	0.827	1422	4.6	12.036	B
B - Cypress Drive	872	1994	668	1.305	667	105.4	405.299	F
C - Newport Road	1051	1456	1001	1.050	991	38.1	123.317	F
D - A48 Slips	1597	565	2578	0.619	1597	1.6	3.667	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1162	1090	1862	0.624	1173	1.7	5.310	A
B - Cypress Drive	712	1640	894	0.796	885	62.0	335.036	F
C - Newport Road	858	1514	970	0.884	945	16.3	108.399	F
D - A48 Slips	1304	601	2552	0.511	1306	1.1	2.893	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	973	911	1975	0.492	976	1.0	3.612	A
B - Cypress Drive	596	1367	1068	0.558	839	1.3	46.296	E
C - Newport Road	718	1355	1055	0.681	775	2.2	15.356	C
D - A48 Slips	1092	522	2609	0.419	1093	0.7	2.379	A

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	312.42	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1310	100.000
B - Cypress Drive		✓	629	100.000
C - Newport Road		✓	1040	100.000

D - A48 Slips		✓	2745	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	6	606	325	373
	B - Cypress Drive	187	0	92	349
	C - Newport Road	353	247	0	440
	D - A48 Slips	700	1422	623	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	1.14	266.10	98.5	F
B - Cypress Drive	0.60	7.64	1.5	A
C - Newport Road	0.90	27.10	8.1	D
D - A48 Slips	1.28	512.47	353.6	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	986	1712	1470	0.671	978	2.0	7.220	A
B - Cypress Drive	473	991	1307	0.362	471	0.6	4.294	A
C - Newport Road	783	685	1414	0.554	778	1.2	5.625	A
D - A48 Slips	2067	593	2558	0.808	2051	4.0	6.889	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1178	2001	1288	0.915	1153	8.1	23.529	C
B - Cypress Drive	565	1162	1198	0.472	564	0.9	5.663	A
C - Newport Road	935	815	1344	0.696	931	2.2	8.633	A
D - A48 Slips	2468	710	2476	0.997	2389	23.7	28.694	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1443	2031	1268	1.138	1257	54.5	100.512	F
B - Cypress Drive	692	1213	1166	0.594	690	1.4	7.535	A
C - Newport Road	1145	953	1270	0.901	1125	7.3	22.207	C
D - A48 Slips	3022	860	2371	1.275	2369	187.2	165.538	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1443	2031	1268	1.138	1267	98.5	225.622	F
B - Cypress Drive	692	1217	1163	0.595	692	1.5	7.639	A
C - Newport Road	1145	957	1268	0.903	1142	8.1	27.099	D
D - A48 Slips	3022	870	2363	1.279	2363	352.0	408.676	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1178	2061	1249	0.943	1237	83.7	266.096	F
B - Cypress Drive	565	1224	1159	0.488	567	1.0	6.100	A
C - Newport Road	935	842	1330	0.703	958	2.5	10.227	B
D - A48 Slips	2468	727	2464	1.001	2462	353.6	512.469	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	986	2083	1235	0.798	1221	25.1	164.180	F
B - Cypress Drive	473	1234	1153	0.411	475	0.7	5.316	A
C - Newport Road	783	758	1375	0.570	787	1.3	6.179	A
D - A48 Slips	2067	601	2553	0.810	2546	233.9	415.883	F

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A48 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Warning	Geometry	C - Newport Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	A48_Cypress Drive_Newport Road	Standard Roundabout		A, B, C, D	1081.80	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1245	100.000
B - Cypress Drive		✓	1737	100.000
C - Newport Road		✓	944	100.000
D - A48 Slips		✓	1457	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	**B - Cypress Drive**	**C - Newport Road**	**D - A48 Slips**
From	**A - A48**	2	180	308	755
	B - Cypress Drive	397	0	195	1144
	C - Newport Road	247	121	0	577
	D - A48 Slips	281	490	687	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Cypress Drive	C - Newport Road	D - A48 Slips
From	A - A48	0	0	0	0
	B - Cypress Drive	0	0	0	0
	C - Newport Road	0	0	0	0
	D - A48 Slips	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - A48	0.83	12.62	4.7	B
B - Cypress Drive	2.69	3274.81	1022.9	F
C - Newport Road	1.04	120.69	36.5	F
D - A48 Slips	0.62	3.65	1.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	937	973	1936	0.484	933	0.9	3.577	A
B - Cypress Drive	1308	1314	1102	1.187	1082	56.3	104.665	F
C - Newport Road	711	1529	962	0.739	700	2.7	13.248	B
D - A48 Slips	1097	522	2609	0.421	1094	0.7	2.373	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1119	1164	1816	0.616	1116	1.6	5.128	A
B - Cypress Drive	1561	1572	937	1.666	937	212.4	592.505	F
C - Newport Road	849	1511	972	0.873	836	5.7	24.555	C
D - A48 Slips	1310	542	2594	0.505	1309	1.0	2.797	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1370	1418	1655	0.828	1359	4.5	11.706	B
B - Cypress Drive	1912	1917	717	2.668	717	511.3	1817.424	F
C - Newport Road	1039	1463	997	1.042	969	23.3	67.404	F
D - A48 Slips	1604	544	2593	0.619	1602	1.6	3.622	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1370	1422	1653	0.829	1370	4.7	12.625	B
B - Cypress Drive	1912	1928	710	2.693	710	811.9	2631.184	F
C - Newport Road	1039	1464	997	1.043	987	36.5	120.691	F
D - A48 Slips	1604	549	2590	0.620	1604	1.6	3.652	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	1119	1181	1805	0.620	1131	1.7	5.436	A
B - Cypress Drive	1561	1586	928	1.682	928	970.2	3066.870	F
C - Newport Road	849	1512	971	0.874	949	11.4	99.247	F
D - A48 Slips	1310	584	2565	0.511	1312	1.1	2.880	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A48	937	982	1930	0.485	940	1.0	3.646	A
B - Cypress Drive	1308	1322	1097	1.192	1097	1022.9	3274.809	F
C - Newport Road	711	1545	953	0.746	744	3.1	19.524	C
D - A48 Slips	1097	542	2594	0.423	1098	0.7	2.409	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 7_B4487_Llaneirwg Way.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\ARCADY
Report generation date: 11/05/2020 12:43:04

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
1 - Newport Road	0.9	3.65	0.48	A	1.2	4.21	0.54	A
2 - Llaneirwg Way	1.9	9.33	0.66	A	1.9	9.17	0.66	A
3 - B4487	0.8	3.72	0.44	A	0.8	3.68	0.45	A
4 - William Nicholls Dr	0.4	5.79	0.28	A	0.3	5.95	0.21	A
	2023 + Com Dev							
1 - Newport Road	1.2	4.18	0.54	A	1.6	5.08	0.62	A
2 - Llaneirwg Way	4.3	17.86	0.82	C	2.9	12.66	0.75	B
3 - B4487	1.0	4.49	0.50	A	1.0	4.15	0.50	A
4 - William Nicholls Dr	0.5	7.28	0.34	A	0.3	6.94	0.25	A
	2023 + Com Dev + Dev							
1 - Newport Road	1.2	4.27	0.55	A	1.9	5.77	0.66	A
2 - Llaneirwg Way	5.5	22.28	0.86	C	3.3	14.72	0.78	B
3 - B4487	1.2	5.02	0.55	A	1.0	4.25	0.51	A
4 - William Nicholls Dr	0.6	8.27	0.37	A	0.3	7.12	0.25	A
	2028 + Com Dev							
1 - Newport Road	1.2	4.31	0.55	A	1.7	5.27	0.63	A
2 - Llaneirwg Way	4.9	20.02	0.84	C	3.1	13.64	0.76	B
3 - B4487	1.1	4.63	0.52	A	1.0	4.26	0.51	A

4 - William Nicholls Dr	0.5	7.54	0.35	A	0.3	7.16	0.26	A
	2028 + Com Dev + Dev							
1 - Newport Road	1.2	4.15	0.54	A	1.9	5.69	0.66	A
2 - Llaneirwg Way	4.7	19.26	0.83	C	3.9	17.13	0.80	C
3 - B4487	1.3	5.21	0.57	A	1.0	4.21	0.50	A
4 - William Nicholls Dr	0.6	8.70	0.39	A	0.3	6.97	0.24	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	28/11/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Urszula.Suplicka
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	5.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Newport Road	
2	Llaneirwg Way	
3	B4487	
4	William Nicholls Dr	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Newport Road	3.07	9.61	29.3	96.5	34.1	21.0	
2 - Llaneirwg Way	3.62	6.84	13.3	10.0	34.1	36.0	
3 - B4487	6.16	6.48	4.1	59.0	34.1	12.0	
4 - William Nicholls Dr	3.41	5.35	9.5	17.5	34.1	9.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Newport Road	0.783	2233
2 - Llaneirwg Way	0.598	1533
3 - B4487	0.769	2128
4 - William Nicholls Dr	0.628	1480

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	826	100.000
2 - Llaneirwg Way		✓	672	100.000
3 - B4487		✓	691	100.000
4 - William Nicholls Dr		✓	217	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	4	284	358	179
	2 - Llaneirwg Way	279	0	382	11
	3 - B4487	324	289	1	77
	4 - William Nicholls Dr	114	26	77	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.48	3.65	0.9	A
2 - Llaneirwg Way	0.66	9.33	1.9	A
3 - B4487	0.44	3.72	0.8	A
4 - William Nicholls Dr	0.28	5.79	0.4	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	622	294	2002	0.311	620	0.4	2.601	A
2 - Llaneirwg Way	506	465	1255	0.403	503	0.7	4.769	A
3 - B4487	520	355	1856	0.280	518	0.4	2.690	A
4 - William Nicholls Dr	163	672	1057	0.154	162	0.2	4.019	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	742	352	1957	0.379	742	0.6	2.961	A
2 - Llaneirwg Way	604	556	1200	0.503	603	1.0	6.009	A
3 - B4487	621	425	1802	0.345	620	0.5	3.045	A
4 - William Nicholls Dr	195	805	974	0.200	194	0.2	4.616	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	909	431	1895	0.480	908	0.9	3.643	A
2 - Llaneirwg Way	740	681	1126	0.657	736	1.9	9.157	A
3 - B4487	760	519	1729	0.440	759	0.8	3.709	A
4 - William Nicholls Dr	238	984	861	0.277	238	0.4	5.772	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	909	432	1894	0.480	909	0.9	3.653	A
2 - Llaneirwg Way	740	682	1125	0.657	740	1.9	9.326	A
3 - B4487	760	521	1728	0.440	760	0.8	3.720	A
4 - William Nicholls Dr	238	987	860	0.277	238	0.4	5.794	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	742	354	1956	0.380	744	0.6	2.972	A
2 - Llaneirwg Way	604	558	1199	0.503	607	1.0	6.114	A
3 - B4487	621	427	1800	0.345	622	0.5	3.057	A
4 - William Nicholls Dr	195	808	972	0.200	195	0.3	4.637	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	622	296	2001	0.311	622	0.5	2.612	A
2 - Llaneirwg Way	506	467	1254	0.403	507	0.7	4.831	A
3 - B4487	520	357	1854	0.280	521	0.4	2.700	A
4 - William Nicholls Dr	163	676	1055	0.155	163	0.2	4.037	A

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	5.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	921	100.000
2 - Llaneirwg Way		✓	680	100.000
3 - B4487		✓	739	100.000
4 - William Nicholls Dr		✓	145	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	**2 - Llaneirwg Way**	**3 - B4487**	**4 - William Nicholls Dr**
From	**1 - Newport Road**	8	363	493	58
	2 - Llaneirwg Way	310	5	348	17
	3 - B4487	344	363	4	29
	4 - William Nicholls Dr	95	16	34	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.54	4.21	1.2	A
2 - Llaneirwg Way	0.66	9.17	1.9	A
3 - B4487	0.45	3.68	0.8	A
4 - William Nicholls Dr	0.21	5.95	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	694	317	1985	0.349	691	0.5	2.778	A
2 - Llaneirwg Way	512	448	1265	0.404	509	0.7	4.741	A
3 - B4487	557	298	1899	0.293	555	0.4	2.674	A
4 - William Nicholls Dr	109	775	993	0.110	109	0.1	4.071	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	828	379	1936	0.428	827	0.7	3.246	A
2 - Llaneirwg Way	611	536	1213	0.504	610	1.0	5.956	A
3 - B4487	665	357	1854	0.359	664	0.6	3.024	A
4 - William Nicholls Dr	130	928	897	0.145	130	0.2	4.695	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1014	464	1870	0.543	1013	1.2	4.192	A
2 - Llaneirwg Way	748	656	1141	0.656	745	1.9	9.010	A
3 - B4487	814	436	1793	0.454	813	0.8	3.671	A
4 - William Nicholls Dr	160	1135	766	0.208	159	0.3	5.925	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

1 - Newport Road	1014	465	1869	0.543	1014	1.2	4.211	A
2 - Llaneirwg Way	748	657	1140	0.656	748	1.9	9.172	A
3 - B4487	814	438	1791	0.454	814	0.8	3.682	A
4 - William Nicholls Dr	160	1138	765	0.209	160	0.3	5.948	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	828	380	1935	0.428	830	0.8	3.263	A
2 - Llaneirwg Way	611	537	1212	0.504	614	1.0	6.062	A
3 - B4487	665	360	1852	0.359	666	0.6	3.039	A
4 - William Nicholls Dr	130	932	894	0.146	131	0.2	4.717	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	694	318	1984	0.350	694	0.5	2.793	A
2 - Llaneirwg Way	512	450	1264	0.405	513	0.7	4.803	A
3 - B4487	557	300	1897	0.293	557	0.4	2.686	A
4 - William Nicholls Dr	109	779	990	0.110	109	0.1	4.087	A

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	8.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)

1 - Newport Road		✓	923	100.000
2 - Llaneirwg Way		✓	817	100.000
3 - B4487		✓	742	100.000
4 - William Nicholls Dr		✓	228	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	**2 - Llaneirwg Way**	**3 - B4487**	**4 - William Nicholls Dr**
From	**1 - Newport Road**	4	343	386	191
	2 - Llaneirwg Way	397	0	407	13
	3 - B4487	356	305	1	80
	4 - William Nicholls Dr	121	27	79	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	**2 - Llaneirwg Way**	**3 - B4487**	**4 - William Nicholls Dr**
From	**1 - Newport Road**	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.54	4.18	1.2	A
2 - Llaneirwg Way	0.82	17.86	4.3	C
3 - B4487	0.50	4.49	1.0	A
4 - William Nicholls Dr	0.34	7.28	0.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	695	310	1990	0.349	693	0.5	2.770	A
2 - Llaneirwg Way	615	496	1236	0.497	611	1.0	5.720	A
3 - B4487	558	452	1781	0.314	556	0.5	2.937	A
4 - William Nicholls Dr	171	796	979	0.175	170	0.2	4.446	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	830	371	1942	0.427	829	0.7	3.233	A
2 - Llaneirwg Way	734	594	1178	0.623	732	1.6	8.015	A
3 - B4487	667	541	1712	0.389	666	0.6	3.440	A
4 - William Nicholls Dr	205	953	881	0.232	204	0.3	5.319	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1017	454	1877	0.541	1015	1.2	4.164	A
2 - Llaneirwg Way	899	726	1099	0.818	889	4.1	16.450	C
3 - B4487	816	660	1621	0.504	815	1.0	4.457	A
4 - William Nicholls Dr	251	1164	748	0.335	250	0.5	7.206	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1017	455	1877	0.542	1017	1.2	4.184	A
2 - Llaneirwg Way	899	728	1098	0.819	898	4.3	17.856	C
3 - B4487	816	665	1617	0.505	816	1.0	4.494	A
4 - William Nicholls Dr	251	1170	745	0.336	251	0.5	7.282	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	830	372	1941	0.428	832	0.8	3.251	A
2 - Llaneirwg Way	734	596	1177	0.624	745	1.7	8.515	A
3 - B4487	667	548	1707	0.391	668	0.6	3.473	A
4 - William Nicholls Dr	205	962	875	0.234	205	0.3	5.377	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	695	311	1989	0.350	696	0.5	2.787	A
2 - Llaneirwg Way	615	498	1235	0.498	618	1.0	5.855	A
3 - B4487	558	456	1778	0.314	559	0.5	2.955	A
4 - William Nicholls Dr	171	802	976	0.176	172	0.2	4.478	A

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS

7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	7.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	1037	100.000
2 - Llaneirwg Way		✓	758	100.000
3 - B4487		✓	787	100.000
4 - William Nicholls Dr		✓	155	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	**2 - Llaneirwg Way**	**3 - B4487**	**4 - William Nicholls Dr**
From	**1 - Newport Road**	8	445	520	64
	2 - Llaneirwg Way	372	5	362	18
	3 - B4487	371	382	4	30
	4 - William Nicholls Dr	103	17	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	**2 - Llaneirwg Way**	**3 - B4487**	**4 - William Nicholls Dr**
From	**1 - Newport Road**	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS

1 - Newport Road	0.62	5.08	1.6	A
2 - Llaneirwg Way	0.75	12.66	2.9	B
3 - B4487	0.50	4.15	1.0	A
4 - William Nicholls Dr	0.25	6.94	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	781	333	1972	0.396	778	0.7	3.009	A
2 - Llaneirwg Way	570	474	1250	0.456	567	0.8	5.248	A
3 - B4487	592	350	1859	0.319	591	0.5	2.834	A
4 - William Nicholls Dr	117	857	941	0.124	116	0.1	4.360	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	933	398	1921	0.486	931	0.9	3.636	A
2 - Llaneirwg Way	681	567	1194	0.570	679	1.3	6.964	A
3 - B4487	707	419	1806	0.392	707	0.6	3.273	A
4 - William Nicholls Dr	140	1025	835	0.167	139	0.2	5.171	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1142	488	1851	0.617	1140	1.6	5.042	A
2 - Llaneirwg Way	834	693	1118	0.746	828	2.8	12.162	B
3 - B4487	866	511	1735	0.499	865	1.0	4.130	A
4 - William Nicholls Dr	171	1253	692	0.247	171	0.3	6.897	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1142	488	1850	0.617	1142	1.6	5.083	A
2 - Llaneirwg Way	834	695	1118	0.747	834	2.9	12.657	B
3 - B4487	866	515	1733	0.500	866	1.0	4.155	A
4 - William Nicholls Dr	171	1258	689	0.248	171	0.3	6.943	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	933	400	1920	0.486	935	1.0	3.664	A
2 - Llaneirwg Way	681	569	1193	0.571	687	1.4	7.204	A
3 - B4487	707	424	1803	0.392	709	0.6	3.296	A
4 - William Nicholls Dr	140	1031	832	0.168	140	0.2	5.209	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	781	334	1971	0.396	782	0.7	3.030	A
2 - Llaneirwg Way	570	476	1248	0.457	572	0.9	5.340	A
3 - B4487	592	353	1857	0.319	593	0.5	2.849	A
4 - William Nicholls Dr	117	862	938	0.125	117	0.1	4.387	A

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	10.25	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	939	100.000
2 - Llaneirwg Way		✓	849	100.000
3 - B4487		✓	792	100.000
4 - William Nicholls Dr		✓	229	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	4	348	396	191
	2 - Llaneirwg Way	429	0	407	13
	3 - B4487	406	305	1	80
	4 - William Nicholls Dr	123	27	79	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.55	4.27	1.2	A
2 - Llaneirwg Way	0.86	22.28	5.5	C
3 - B4487	0.55	5.02	1.2	A
4 - William Nicholls Dr	0.37	8.27	0.6	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	707	310	1990	0.355	705	0.5	2.795	A
2 - Llaneirwg Way	639	503	1232	0.519	635	1.1	5.988	A
3 - B4487	596	477	1762	0.339	594	0.5	3.078	A
4 - William Nicholls Dr	173	859	940	0.184	172	0.2	4.680	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	844	371	1942	0.434	843	0.8	3.271	A
2 - Llaneirwg Way	763	602	1173	0.651	760	1.8	8.660	A
3 - B4487	712	571	1690	0.422	711	0.7	3.676	A
4 - William Nicholls Dr	206	1028	834	0.247	206	0.3	5.726	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1034	453	1878	0.550	1032	1.2	4.248	A
2 - Llaneirwg Way	935	737	1092	0.856	922	5.2	19.686	C
3 - B4487	872	694	1595	0.547	870	1.2	4.955	A
4 - William Nicholls Dr	252	1253	692	0.365	251	0.6	8.149	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1034	455	1877	0.551	1034	1.2	4.269	A
2 - Llaneirwg Way	935	738	1092	0.856	933	5.5	22.281	C
3 - B4487	872	700	1590	0.549	872	1.2	5.016	A
4 - William Nicholls Dr	252	1261	687	0.367	252	0.6	8.273	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	844	372	1941	0.435	846	0.8	3.290	A
2 - Llaneirwg Way	763	604	1172	0.651	778	1.9	9.449	A
3 - B4487	712	580	1682	0.423	714	0.7	3.724	A
4 - William Nicholls Dr	206	1039	827	0.249	207	0.3	5.816	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	707	311	1989	0.355	708	0.6	2.813	A
2 - Llaneirwg Way	639	506	1231	0.519	643	1.1	6.156	A
3 - B4487	596	481	1758	0.339	597	0.5	3.102	A
4 - William Nicholls Dr	173	865	936	0.184	173	0.2	4.719	A

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	7.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	1114	100.000
2 - Llaneirwg Way		✓	765	100.000
3 - B4487		✓	798	100.000
4 - William Nicholls Dr		✓	156	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	8	473	567	66
	2 - Llaneirwg Way	380	5	362	18
	3 - B4487	382	382	4	30
	4 - William Nicholls Dr	103	17	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.66	5.77	1.9	A
2 - Llaneirwg Way	0.78	14.72	3.3	B
3 - B4487	0.51	4.25	1.0	A
4 - William Nicholls Dr	0.25	7.12	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	839	333	1972	0.425	836	0.7	3.161	A
2 - Llaneirwg Way	576	510	1228	0.469	572	0.9	5.465	A
3 - B4487	601	357	1854	0.324	599	0.5	2.865	A
4 - William Nicholls Dr	117	870	933	0.126	117	0.1	4.407	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1002	398	1921	0.522	1000	1.1	3.906	A
2 - Llaneirwg Way	688	611	1168	0.589	686	1.4	7.431	A
3 - B4487	718	427	1800	0.399	717	0.7	3.322	A
4 - William Nicholls Dr	140	1042	825	0.169	140	0.2	5.250	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1227	487	1851	0.663	1224	1.9	5.706	A
2 - Llaneirwg Way	842	747	1086	0.775	835	3.2	13.923	B
3 - B4487	879	521	1728	0.509	877	1.0	4.224	A
4 - William Nicholls Dr	171	1273	680	0.252	171	0.3	7.064	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1227	488	1850	0.663	1227	1.9	5.772	A
2 - Llaneirwg Way	842	749	1085	0.776	842	3.3	14.716	B
3 - B4487	879	524	1725	0.509	879	1.0	4.252	A
4 - William Nicholls Dr	171	1278	677	0.253	171	0.3	7.121	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1002	400	1920	0.522	1005	1.1	3.950	A
2 - Llaneirwg Way	688	614	1166	0.590	695	1.5	7.761	A
3 - B4487	718	433	1796	0.400	719	0.7	3.346	A
4 - William Nicholls Dr	140	1049	821	0.170	140	0.2	5.294	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	839	334	1971	0.426	840	0.7	3.190	A
2 - Llaneirwg Way	576	513	1226	0.470	578	0.9	5.576	A
3 - B4487	601	360	1852	0.325	602	0.5	2.881	A
4 - William Nicholls Dr	117	876	929	0.126	117	0.1	4.434	A

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	9.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	940	100.000
2 - Llaneirwg Way		✓	830	100.000
3 - B4487		✓	755	100.000
4 - William Nicholls Dr		✓	232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	4	348	393	194
	2 - Llaneirwg Way	402	0	415	13
	3 - B4487	362	311	1	81
	4 - William Nicholls Dr	123	28	81	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.55	4.31	1.2	A
2 - Llaneirwg Way	0.84	20.02	4.9	C
3 - B4487	0.52	4.63	1.1	A
4 - William Nicholls Dr	0.35	7.54	0.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	707	316	1986	0.356	705	0.6	2.807	A
2 - Llaneirwg Way	625	505	1231	0.508	621	1.0	5.861	A
3 - B4487	569	459	1775	0.320	567	0.5	2.975	A
4 - William Nicholls Dr	175	810	971	0.180	174	0.2	4.510	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	845	378	1937	0.436	844	0.8	3.289	A
2 - Llaneirwg Way	746	605	1172	0.637	743	1.7	8.350	A
3 - B4487	679	550	1706	0.398	678	0.7	3.502	A
4 - William Nicholls Dr	208	969	871	0.239	208	0.3	5.430	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1034	462	1871	0.553	1033	1.2	4.285	A
2 - Llaneirwg Way	914	740	1091	0.838	902	4.6	18.078	C
3 - B4487	831	669	1614	0.515	830	1.1	4.582	A
4 - William Nicholls Dr	255	1182	737	0.346	254	0.5	7.449	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

1 - Newport Road	1034	463	1870	0.553	1034	1.2	4.308	A
2 - Llaneirwg Way	914	741	1090	0.838	913	4.9	20.017	C
3 - B4487	831	675	1610	0.517	831	1.1	4.626	A
4 - William Nicholls Dr	255	1189	733	0.348	255	0.5	7.539	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	845	379	1936	0.436	846	0.8	3.309	A
2 - Llaneirwg Way	746	607	1170	0.638	758	1.8	8.985	A
3 - B4487	679	558	1699	0.399	680	0.7	3.540	A
4 - William Nicholls Dr	208	978	865	0.241	209	0.3	5.497	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	707	317	1984	0.356	708	0.6	2.822	A
2 - Llaneirwg Way	625	508	1230	0.508	628	1.0	6.014	A
3 - B4487	569	463	1772	0.321	569	0.5	2.996	A
4 - William Nicholls Dr	175	815	967	0.180	175	0.2	4.544	A

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	7.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)

1 - Newport Road		✓	1054	100.000
2 - Llaneirwg Way		✓	770	100.000
3 - B4487		✓	800	100.000
4 - William Nicholls Dr		✓	158	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	**2 - Llaneirwg Way**	**3 - B4487**	**4 - William Nicholls Dr**
From	**1 - Newport Road**	8	452	529	65
	2 - Llaneirwg Way	378	5	369	18
	3 - B4487	377	389	4	30
	4 - William Nicholls Dr	105	18	36	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	**2 - Llaneirwg Way**	**3 - B4487**	**4 - William Nicholls Dr**
From	**1 - Newport Road**	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.63	5.27	1.7	A
2 - Llaneirwg Way	0.76	13.64	3.1	B
3 - B4487	0.51	4.26	1.0	A
4 - William Nicholls Dr	0.26	7.16	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	794	338	1968	0.403	791	0.7	3.053	A
2 - Llaneirwg Way	580	482	1245	0.466	576	0.9	5.358	A
3 - B4487	603	355	1855	0.325	601	0.5	2.866	A
4 - William Nicholls Dr	119	870	933	0.128	118	0.1	4.418	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	948	405	1915	0.495	946	1.0	3.709	A
2 - Llaneirwg Way	692	576	1188	0.583	690	1.4	7.195	A
3 - B4487	720	425	1801	0.399	719	0.7	3.324	A
4 - William Nicholls Dr	142	1042	825	0.172	142	0.2	5.268	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1161	496	1845	0.629	1158	1.7	5.221	A
2 - Llaneirwg Way	848	705	1112	0.763	841	3.0	13.005	B
3 - B4487	881	519	1729	0.510	880	1.0	4.230	A
4 - William Nicholls Dr	174	1274	679	0.256	173	0.3	7.106	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1161	497	1844	0.629	1160	1.7	5.268	A
2 - Llaneirwg Way	848	707	1111	0.764	848	3.1	13.636	B
3 - B4487	881	522	1727	0.510	881	1.0	4.257	A
4 - William Nicholls Dr	174	1278	677	0.257	174	0.3	7.161	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	948	407	1914	0.495	950	1.0	3.747	A
2 - Llaneirwg Way	692	579	1187	0.583	699	1.4	7.477	A
3 - B4487	720	430	1798	0.400	721	0.7	3.350	A
4 - William Nicholls Dr	142	1049	821	0.173	143	0.2	5.313	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	794	340	1966	0.404	795	0.7	3.077	A
2 - Llaneirwg Way	580	484	1244	0.466	582	0.9	5.459	A
3 - B4487	603	358	1853	0.325	603	0.5	2.884	A
4 - William Nicholls Dr	119	876	929	0.128	119	0.1	4.446	A

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS

7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	9.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	912	100.000
2 - Llaneirwg Way		✓	841	100.000
3 - B4487		✓	825	100.000
4 - William Nicholls Dr		✓	239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	4	350	363	195
	2 - Llaneirwg Way	413	0	415	13
	3 - B4487	432	311	1	81
	4 - William Nicholls Dr	130	28	81	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS

1 - Newport Road	0.54	4.15	1.2	A
2 - Llaneirwg Way	0.83	19.26	4.7	C
3 - B4487	0.57	5.21	1.3	A
4 - William Nicholls Dr	0.39	8.70	0.6	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	686	315	1986	0.346	684	0.5	2.761	A
2 - Llaneirwg Way	633	483	1244	0.509	629	1.0	5.814	A
3 - B4487	621	468	1768	0.351	619	0.5	3.127	A
4 - William Nicholls Dr	180	870	933	0.193	179	0.2	4.768	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	820	378	1937	0.423	819	0.7	3.218	A
2 - Llaneirwg Way	756	578	1188	0.637	753	1.7	8.237	A
3 - B4487	742	560	1697	0.437	741	0.8	3.760	A
4 - William Nicholls Dr	215	1042	825	0.260	214	0.3	5.889	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1004	462	1871	0.536	1002	1.1	4.135	A
2 - Llaneirwg Way	926	707	1110	0.834	915	4.5	17.498	C
3 - B4487	909	682	1604	0.567	906	1.3	5.147	A
4 - William Nicholls Dr	263	1271	681	0.386	262	0.6	8.567	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1004	463	1870	0.537	1004	1.2	4.154	A
2 - Llaneirwg Way	926	708	1109	0.835	925	4.7	19.263	C
3 - B4487	909	688	1600	0.568	909	1.3	5.209	A
4 - William Nicholls Dr	263	1278	677	0.388	263	0.6	8.698	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	820	379	1936	0.423	821	0.7	3.237	A
2 - Llaneirwg Way	756	580	1186	0.637	768	1.8	8.833	A
3 - B4487	742	568	1691	0.439	744	0.8	3.809	A
4 - William Nicholls Dr	215	1052	819	0.262	216	0.4	5.978	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	686	317	1984	0.346	687	0.5	2.778	A
2 - Llaneirwg Way	633	485	1243	0.509	636	1.1	5.963	A
3 - B4487	621	472	1765	0.352	622	0.5	3.154	A
4 - William Nicholls Dr	180	877	929	0.193	180	0.2	4.812	A

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B4487/Llaneirwg	Standard Roundabout		1, 2, 3, 4	8.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Newport Road		✓	1101	100.000
2 - Llaneirwg Way		✓	777	100.000
3 - B4487		✓	785	100.000
4 - William Nicholls Dr		✓	151	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	8	426	600	67
	2 - Llaneirwg Way	385	5	369	18
	3 - B4487	362	389	4	30
	4 - William Nicholls Dr	98	18	36	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Newport Road	2 - Llaneirwg Way	3 - B4487	4 - William Nicholls Dr
From	1 - Newport Road	0	0	0	0
	2 - Llaneirwg Way	0	0	0	0
	3 - B4487	0	0	0	0
	4 - William Nicholls Dr	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Newport Road	0.66	5.69	1.9	A
2 - Llaneirwg Way	0.80	17.13	3.9	C
3 - B4487	0.50	4.21	1.0	A
4 - William Nicholls Dr	0.24	6.97	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	829	339	1968	0.421	826	0.7	3.145	A
2 - Llaneirwg Way	585	536	1213	0.482	581	0.9	5.667	A
3 - B4487	591	362	1850	0.320	589	0.5	2.851	A
4 - William Nicholls Dr	114	864	937	0.121	113	0.1	4.367	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	990	405	1915	0.517	988	1.1	3.877	A
2 - Llaneirwg Way	698	642	1149	0.607	696	1.5	7.892	A
3 - B4487	706	433	1795	0.393	705	0.6	3.301	A
4 - William Nicholls Dr	136	1034	830	0.163	135	0.2	5.182	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1212	496	1844	0.657	1209	1.9	5.632	A
2 - Llaneirwg Way	855	785	1064	0.804	846	3.8	15.897	C
3 - B4487	865	527	1723	0.502	863	1.0	4.180	A
4 - William Nicholls Dr	166	1263	686	0.242	166	0.3	6.911	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	1212	497	1844	0.657	1212	1.9	5.694	A
2 - Llaneirwg Way	855	787	1063	0.805	854	3.9	17.133	C
3 - B4487	865	532	1720	0.503	865	1.0	4.210	A
4 - William Nicholls Dr	166	1269	683	0.243	166	0.3	6.968	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	990	407	1914	0.517	993	1.1	3.920	A
2 - Llaneirwg Way	698	645	1148	0.608	707	1.6	8.343	A
3 - B4487	706	440	1790	0.394	707	0.7	3.327	A
4 - William Nicholls Dr	136	1042	825	0.164	136	0.2	5.231	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Newport Road	829	340	1966	0.421	830	0.7	3.173	A
2 - Llaneirwg Way	585	539	1211	0.483	587	0.9	5.797	A
3 - B4487	591	365	1848	0.320	592	0.5	2.870	A
4 - William Nicholls Dr	114	870	933	0.122	114	0.1	4.395	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 10_A48_A4232_CAL.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\ARCADY
Report generation date: 11/05/2020 12:48:22

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev, Weekday AM Peak
»2023 + Com Dev, Weekday PM Peak
»2023 + Com Dev + Dev, Weekday AM Peak
»2023 + Com Dev + Dev, Weekday PM Peak
»2028 + Com Dev, Weekday AM Peak
»2028 + Com Dev, Weekday PM Peak
»2028 + Com Dev + Dev, Weekday AM Peak
»2028 + Com Dev + Dev, Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
1 - A48	1.2	6.99	0.55	A	5.2	17.23	0.85	C
2 - A48	1.5	6.71	0.59	A	6.1	24.75	0.87	C
3 - Capel Edeyrn	1.2	8.79	0.55	A	1.3	13.18	0.56	B
4 - A4232	3.5	8.57	0.78	A	1.2	4.02	0.55	A
	2023 + Com Dev							
1 - A48	3.3	16.48	0.78	C	34.9	94.56	1.03	F
2 - A48	3.1	11.91	0.76	B	126.3	401.58	1.23	F
3 - Capel Edeyrn	1.9	13.39	0.66	B	2.1	20.13	0.68	C
4 - A4232	28.3	53.85	1.00	F	2.0	5.45	0.67	A
	2023 + Com Dev + Dev							
1 - A48	3.5	17.26	0.79	C	79.9	187.97	1.12	F
2 - A48	3.2	12.18	0.77	B	146.1	492.26	1.24	F
3 - Capel Edeyrn	2.3	15.20	0.70	C	2.2	20.90	0.69	C
4 - A4232	33.2	61.44	1.01	F	2.0	5.46	0.67	A
	2028 + Com Dev							
1 - A48	3.6	17.92	0.79	C	46.8	120.41	1.06	F
2 - A48	3.4	12.84	0.78	B	140.0	462.62	1.25	F
3 - Capel Edeyrn	2.1	14.41	0.68	B	2.2	20.76	0.69	C

4 - A4232	37.4	67.23	1.01	F	2.1	5.64	0.68	A
	2028 + Com Dev + Dev							
1 - A48	3.7	18.04	0.80	C	158.3	388.31	1.24	F
2 - A48	2.2	9.37	0.69	A	148.9	532.72	1.24	F
3 - Capel Edeyrn	1.9	12.94	0.66	B	1.9	18.97	0.66	C
4 - A4232	48.9	84.31	1.03	F	2.0	5.41	0.66	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	28/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A48	
2	A48	
3	Capel Edeyrn	
4	A4232	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A48	6.29	7.40	27.6	40.0	127.6	40.0	
2 - A48	6.50	6.50	0.0	48.4	127.6	28.0	
3 - Capel Edeyrn	3.62	4.86	19.7	27.0	127.6	37.0	
4 - A4232	4.14	6.72	102.8	40.9	127.7	18.0	

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - A48		
2 - A48		
3 - Capel Edeyrn		
4 - A4232	✓	95

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - A48	✓	0.511	1900	0.511	1900
2 - A48	✓	0.501	1725	0.501	1725
3 - Capel Edeyrn				0.401	1393
4 - A4232				0.517	2110

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	570	100.000
2 - A48		✓	715	100.000
3 - Capel Edeyrn		✓	446	100.000
4 - A4232		✓	2323	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	**2 - A48**	**3 - Capel Edeyrn**	**4 - A4232**
From	**1 - A48**	15	1	157	397
	2 - A48	1	2	9	703
	3 - Capel Edeyrn	278	25	0	143
	4 - A4232	1003	1161	159	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A48	**2 - A48**	**3 - Capel Edeyrn**	**4 - A4232**
From	**1 - A48**	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	0.55	6.99	1.2	A
2 - A48	0.59	6.71	1.5	A
3 - Capel Edeyrn	0.55	8.79	1.2	A
4 - A4232	0.78	8.57	3.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	429	0	1010	1384	0.310	427	0.4	3.756	A
2 - A48	538	0	545	1452	0.371	536	0.6	3.922	A
3 - Capel Edeyrn	335	0	838	1057	0.317	334	0.5	4.962	A
4 - A4232	1749	717	240	1986	0.519	1027	1.1	3.739	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	512	0	1209	1282	0.399	511	0.7	4.664	A
2 - A48	643	0	653	1398	0.460	642	0.8	4.754	A
3 - Capel Edeyrn	400	0	1003	991	0.404	400	0.7	6.078	A
4 - A4232	2088	856	288	1961	0.628	1229	1.7	4.904	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	627	0	1476	1146	0.547	625	1.2	6.888	A
2 - A48	787	0	798	1325	0.594	785	1.4	6.634	A
3 - Capel Edeyrn	491	0	1227	901	0.544	489	1.2	8.676	A
4 - A4232	2557	1049	352	1928	0.782	1501	3.5	8.298	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	627	0	1483	1142	0.549	627	1.2	6.986	A
2 - A48	787	0	801	1324	0.595	787	1.5	6.707	A
3 - Capel Edeyrn	491	0	1231	900	0.545	490	1.2	8.788	A
4 - A4232	2557	1049	353	1927	0.783	1508	3.5	8.573	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	512	0	1218	1278	0.401	514	0.7	4.728	A
2 - A48	643	0	657	1396	0.461	645	0.9	4.812	A
3 - Capel Edeyrn	400	0	1009	989	0.405	402	0.7	6.161	A
4 - A4232	2088	856	290	1960	0.628	1239	1.7	5.042	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	429	0	1017	1381	0.311	430	0.5	3.789	A
2 - A48	538	0	549	1450	0.371	539	0.6	3.957	A
3 - Capel Edeyrn	335	0	843	1055	0.318	336	0.5	5.012	A
4 - A4232	1749	717	242	1985	0.520	1034	1.1	3.798	A

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	13.31	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	1032	100.000
2 - A48		✓	855	100.000
3 - Capel Edeyrn		✓	321	100.000
4 - A4232		✓	1483	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	67	0	130	835
	2 - A48	1	13	17	824
	3 - Capel Edeyrn	119	16	0	186
	4 - A4232	519	826	138	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	0.85	17.23	5.2	C
2 - A48	0.87	24.75	6.1	C
3 - Capel Edeyrn	0.56	13.18	1.3	B
4 - A4232	0.55	4.02	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	777	0	746	1519	0.511	772	1.0	4.797	A
2 - A48	644	0	876	1286	0.501	640	1.0	5.541	A
3 - Capel Edeyrn	242	0	1303	871	0.278	240	0.4	5.695	A
4 - A4232	1117	371	162	2026	0.368	743	0.6	2.802	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	927	0	892	1444	0.642	924	1.8	6.890	A
2 - A48	769	0	1049	1200	0.641	766	1.7	8.245	A
3 - Capel Edeyrn	289	0	1559	768	0.376	288	0.6	7.482	A
4 - A4232	1333	443	194	2010	0.443	890	0.8	3.213	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1136	0	1092	1342	0.846	1123	4.9	15.604	C
2 - A48	942	0	1275	1086	0.867	927	5.5	20.841	C
3 - Capel Edeyrn	354	0	1890	635	0.557	351	1.2	12.558	B
4 - A4232	1633	542	236	1988	0.549	1089	1.2	3.998	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1136	0	1094	1341	0.847	1135	5.2	17.226	C
2 - A48	942	0	1287	1080	0.872	940	6.1	24.752	C
3 - Capel Edeyrn	354	0	1913	626	0.565	354	1.3	13.179	B
4 - A4232	1633	542	238	1987	0.549	1091	1.2	4.017	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	927	0	895	1443	0.643	941	1.8	7.359	A
2 - A48	769	0	1065	1191	0.646	786	1.9	9.236	A
3 - Capel Edeyrn	289	0	1593	755	0.383	291	0.6	7.815	A
4 - A4232	1333	443	197	2008	0.443	892	0.8	3.232	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	777	0	749	1517	0.512	780	1.1	4.902	A
2 - A48	644	0	884	1282	0.502	647	1.0	5.703	A
3 - Capel Edeyrn	242	0	1316	866	0.279	243	0.4	5.789	A
4 - A4232	1117	371	164	2025	0.368	747	0.6	2.816	A

2023 + Com Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	37.04	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	675	100.000
2 - A48		✓	871	100.000
3 - Capel Edeyrn		✓	475	100.000
4 - A4232		✓	2795	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	16	1	169	489
	2 - A48	2	2	9	858
	3 - Capel Edeyrn	298	26	0	151
	4 - A4232	1120	1501	173	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	0.78	16.48	3.3	C
2 - A48	0.76	11.91	3.1	B
3 - Capel Edeyrn	0.66	13.39	1.9	B
4 - A4232	1.00	53.85	28.3	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	508	0	1274	1249	0.407	505	0.7	4.822	A
2 - A48	656	0	634	1407	0.466	652	0.9	4.746	A
3 - Capel Edeyrn	357	0	1023	983	0.363	355	0.6	5.712	A
4 - A4232	2104	801	257	1977	0.659	1295	1.9	5.224	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	606	0	1523	1122	0.541	604	1.2	6.934	A
2 - A48	783	0	759	1345	0.582	781	1.4	6.361	A
3 - Capel Edeyrn	427	0	1225	902	0.473	425	0.9	7.530	A
4 - A4232	2512	957	308	1951	0.797	1548	3.8	8.782	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	743	0	1809	976	0.761	735	3.0	14.566	B
2 - A48	959	0	919	1265	0.758	953	3.0	11.300	B
3 - Capel Edeyrn	523	0	1492	795	0.657	519	1.8	12.858	B
4 - A4232	3077	1172	376	1916	0.995	1838	20.4	32.496	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	743	0	1843	958	0.775	742	3.3	16.478	C
2 - A48	959	0	928	1260	0.761	959	3.1	11.906	B
3 - Capel Edeyrn	523	0	1503	791	0.661	522	1.9	13.389	B
4 - A4232	3077	1172	379	1914	0.995	1874	28.3	53.852	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	606	0	1624	1070	0.567	614	1.3	8.022	A
2 - A48	783	0	779	1335	0.587	790	1.4	6.680	A
3 - Capel Edeyrn	427	0	1241	896	0.476	431	0.9	7.801	A
4 - A4232	2512	957	312	1949	0.798	1652	4.2	15.856	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	508	0	1290	1241	0.409	510	0.7	4.945	A
2 - A48	656	0	641	1404	0.467	658	0.9	4.842	A
3 - Capel Edeyrn	357	0	1033	979	0.365	359	0.6	5.813	A
4 - A4232	2104	801	260	1976	0.659	1312	2.0	5.494	A

2023 + Com Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	133.02	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	1146	100.000
2 - A48		✓	1160	100.000
3 - Capel Edeyrn		✓	347	100.000
4 - A4232		✓	1790	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	68	0	143	935
	2 - A48	2	13	17	1128
	3 - Capel Edeyrn	130	16	0	200
	4 - A4232	620	1023	147	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	1.03	94.56	34.9	F
2 - A48	1.23	401.58	126.3	F
3 - Capel Edeyrn	0.68	20.13	2.1	C
4 - A4232	0.67	5.45	2.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	863	0	900	1440	0.599	857	1.5	6.110	A
2 - A48	873	0	967	1240	0.704	864	2.3	9.359	A
3 - Capel Edeyrn	261	0	1601	751	0.347	259	0.5	7.279	A
4 - A4232	1348	444	171	2021	0.447	901	0.8	3.203	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1030	0	1076	1350	0.763	1024	3.1	10.827	B
2 - A48	1043	0	1156	1146	0.910	1022	7.7	25.473	D
3 - Capel Edeyrn	312	0	1902	631	0.494	310	1.0	11.162	B
4 - A4232	1609	530	205	2004	0.539	1078	1.2	3.883	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1262	0	1315	1228	1.027	1185	22.3	50.370	F
2 - A48	1277	0	1346	1050	1.216	1044	66.0	138.408	F
3 - Capel Edeyrn	382	0	2065	565	0.675	378	2.0	18.780	C
4 - A4232	1971	649	243	1984	0.666	1319	2.0	5.386	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

1 - A48	1262	0	1318	1227	1.029	1211	34.9	94.556	F
2 - A48	1277	0	1373	1037	1.232	1036	126.3	338.039	F
3 - Capel Edeyrn	382	0	2081	559	0.683	381	2.1	20.132	C
4 - A4232	1971	649	246	1983	0.667	1322	2.0	5.448	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1030	0	1082	1347	0.765	1156	3.5	30.067	D
2 - A48	1043	0	1289	1079	0.966	1071	119.3	401.579	F
3 - Capel Edeyrn	312	0	2066	565	0.552	315	1.3	14.574	B
4 - A4232	1609	530	215	1999	0.540	1083	1.2	3.945	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	863	0	908	1436	0.601	871	1.5	6.454	A
2 - A48	873	0	982	1233	0.708	1223	31.9	225.726	F
3 - Capel Edeyrn	261	0	1966	605	0.431	263	0.8	10.589	B
4 - A4232	1348	444	178	2018	0.448	906	0.8	3.240	A

2023 + Com Dev + Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	41.93	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	688	100.000
2 - A48		✓	871	100.000
3 - Capel Edeyrn		✓	500	100.000
4 - A4232		✓	2884	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	16	1	172	499
	2 - A48	2	2	9	858
	3 - Capel Edeyrn	323	26	0	151
	4 - A4232	1209	1501	173	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	0.79	17.26	3.5	C
2 - A48	0.77	12.18	3.2	B
3 - Capel Edeyrn	0.70	15.20	2.3	C
4 - A4232	1.01	61.44	33.2	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	518	0	1274	1249	0.415	515	0.7	4.887	A
2 - A48	656	0	644	1402	0.468	652	0.9	4.778	A
3 - Capel Edeyrn	376	0	1031	980	0.384	374	0.6	5.917	A

4 - A4232	2171	865	276	1967	0.664	1298	1.9	5.323	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	619	0	1522	1122	0.551	617	1.2	7.093	A
2 - A48	783	0	771	1339	0.585	781	1.4	6.428	A
3 - Capel Edeyrn	449	0	1234	898	0.500	448	1.0	7.965	A
4 - A4232	2592	1033	331	1939	0.804	1552	3.9	9.112	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	758	0	1801	980	0.773	750	3.2	15.148	C
2 - A48	959	0	932	1258	0.762	952	3.0	11.532	B
3 - Capel Edeyrn	550	0	1504	790	0.696	546	2.2	14.425	B
4 - A4232	3175	1265	403	1902	1.004	1834	22.9	35.370	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	758	0	1834	963	0.787	756	3.5	17.256	C
2 - A48	959	0	942	1253	0.765	959	3.2	12.182	B
3 - Capel Edeyrn	550	0	1515	786	0.700	550	2.3	15.204	C
4 - A4232	3175	1265	406	1900	1.005	1869	33.2	61.442	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	619	0	1641	1061	0.583	627	1.4	8.438	A
2 - A48	783	0	793	1328	0.590	790	1.5	6.776	A
3 - Capel Edeyrn	449	0	1251	892	0.504	454	1.0	8.318	A
4 - A4232	2592	1033	336	1936	0.805	1675	4.4	19.296	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	518	0	1291	1240	0.418	521	0.7	5.021	A
2 - A48	656	0	652	1399	0.469	658	0.9	4.876	A
3 - Capel Edeyrn	376	0	1041	976	0.386	378	0.6	6.037	A
4 - A4232	2171	865	279	1966	0.664	1316	2.0	5.620	A

2023 + Com Dev + Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	180.33	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	1243	100.000
2 - A48		✓	1160	100.000
3 - Capel Edeyrn		✓	352	100.000
4 - A4232		✓	1803	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	68	0	159	1016
	2 - A48	2	13	17	1128
	3 - Capel Edeyrn	135	16	0	200
	4 - A4232	633	1023	147	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	1.12	187.97	79.9	F
2 - A48	1.24	492.26	146.1	F
3 - Capel Edeyrn	0.69	20.90	2.2	C
4 - A4232	0.67	5.46	2.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	936	0	900	1440	0.650	928	1.8	6.938	A
2 - A48	873	0	1039	1205	0.725	863	2.5	10.271	B
3 - Capel Edeyrn	265	0	1660	728	0.364	263	0.6	7.707	A
4 - A4232	1357	453	175	2019	0.448	901	0.8	3.211	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1117	0	1076	1350	0.828	1107	4.4	14.236	B
2 - A48	1043	0	1239	1104	0.945	1013	10.1	32.176	D
3 - Capel Edeyrn	316	0	1963	606	0.522	314	1.1	12.255	B
4 - A4232	1621	541	209	2002	0.540	1079	1.2	3.895	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1368	0	1314	1228	1.114	1211	43.9	83.058	F
2 - A48	1277	0	1372	1037	1.231	1033	71.2	152.871	F
3 - Capel Edeyrn	388	0	2073	562	0.689	384	2.1	19.702	C
4 - A4232	1985	662	245	1983	0.667	1320	2.0	5.399	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1368	0	1318	1227	1.116	1224	79.9	187.965	F
2 - A48	1277	0	1386	1030	1.240	1030	133.1	368.436	F
3 - Capel Edeyrn	388	0	2082	559	0.694	387	2.2	20.902	C
4 - A4232	1985	662	247	1982	0.667	1323	2.0	5.458	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1117	0	1081	1348	0.829	1331	26.5	147.188	F
2 - A48	1043	0	1464	992	1.052	991	146.1	492.260	F
3 - Capel Edeyrn	316	0	2137	537	0.590	319	1.5	16.768	C

4 - A4232	1621	541	223	1995	0.542	1083	1.2	3.965	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	936	0	908	1436	0.651	1034	1.9	11.362	B
2 - A48	873	0	1145	1151	0.759	1143	78.6	355.470	F
3 - Capel Edeyrn	265	0	2028	580	0.457	268	0.9	11.606	B
4 - A4232	1357	453	187	2013	0.449	906	0.8	3.257	A

2028 + Com Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	45.27	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	686	100.000
2 - A48		✓	885	100.000
3 - Capel Edeyrn		✓	483	100.000
4 - A4232		✓	2841	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	16	1	172	496
	2 - A48	2	2	9	872
	3 - Capel Edeyrn	304	26	0	154
	4 - A4232	1140	1524	177	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	0.79	17.92	3.6	C
2 - A48	0.78	12.84	3.4	B
3 - Capel Edeyrn	0.68	14.41	2.1	B
4 - A4232	1.01	67.23	37.4	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	516	0	1294	1239	0.417	513	0.7	4.942	A
2 - A48	666	0	645	1402	0.475	663	0.9	4.847	A
3 - Capel Edeyrn	364	0	1039	977	0.373	362	0.6	5.832	A
4 - A4232	2139	815	262	1975	0.670	1315	2.0	5.395	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	616	0	1546	1110	0.555	614	1.2	7.230	A
2 - A48	796	0	771	1339	0.594	794	1.4	6.578	A
3 - Capel Edeyrn	435	0	1244	894	0.486	433	0.9	7.782	A
4 - A4232	2554	974	314	1948	0.811	1572	4.1	9.364	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	755	0	1822	969	0.779	747	3.3	15.650	C
2 - A48	975	0	932	1258	0.775	967	3.2	12.082	B
3 - Capel Edeyrn	532	0	1515	786	0.677	528	2.0	13.736	B
4 - A4232	3128	1193	382	1912	1.012	1851	25.0	37.478	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	755	0	1855	952	0.793	753	3.6	17.922	C
2 - A48	975	0	942	1253	0.778	974	3.4	12.840	B
3 - Capel Edeyrn	532	0	1527	781	0.681	532	2.1	14.411	B
4 - A4232	3128	1193	385	1911	1.013	1885	37.4	67.227	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	616	0	1681	1041	0.592	625	1.5	8.817	A
2 - A48	796	0	796	1326	0.600	803	1.5	6.977	A
3 - Capel Edeyrn	435	0	1262	887	0.490	439	1.0	8.105	A
4 - A4232	2554	974	318	1946	0.812	1711	4.7	22.877	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	516	0	1312	1230	0.420	519	0.7	5.086	A
2 - A48	666	0	652	1398	0.477	669	0.9	4.953	A
3 - Capel Edeyrn	364	0	1050	972	0.374	365	0.6	5.947	A
4 - A4232	2139	815	265	1973	0.671	1333	2.1	5.715	A

2028 + Com Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	155.64	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	1166	100.000
2 - A48		✓	1177	100.000
3 - Capel Edeyrn		✓	352	100.000
4 - A4232		✓	1817	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	70	0	145	950
	2 - A48	2	14	18	1143
	3 - Capel Edeyrn	132	17	0	204
	4 - A4232	630	1038	150	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	1.06	120.41	46.8	F
2 - A48	1.25	462.62	140.0	F
3 - Capel Edeyrn	0.69	20.76	2.2	C
4 - A4232	0.68	5.64	2.1	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	878	0	914	1433	0.612	871	1.6	6.342	A
2 - A48	886	0	984	1232	0.719	876	2.5	9.853	A
3 - Capel Edeyrn	265	0	1625	742	0.358	263	0.5	7.489	A
4 - A4232	1368	450	175	2019	0.455	914	0.8	3.249	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1048	0	1093	1341	0.781	1041	3.4	11.692	B
2 - A48	1058	0	1175	1136	0.931	1031	9.0	29.007	D
3 - Capel Edeyrn	317	0	1927	621	0.510	315	1.0	11.698	B
4 - A4232	1634	538	209	2002	0.548	1094	1.2	3.962	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1283	0	1335	1218	1.054	1185	27.9	59.480	F
2 - A48	1295	0	1350	1049	1.235	1044	72.0	150.841	F
3 - Capel Edeyrn	388	0	2065	565	0.686	384	2.1	19.410	C
4 - A4232	2001	659	247	1982	0.677	1339	2.1	5.566	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1283	0	1338	1216	1.055	1208	46.8	120.406	F
2 - A48	1295	0	1373	1037	1.249	1037	136.6	368.567	F
3 - Capel Edeyrn	388	0	2078	560	0.693	388	2.2	20.758	C
4 - A4232	2001	659	250	1981	0.678	1342	2.1	5.636	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1048	0	1099	1339	0.783	1219	4.1	53.506	F
2 - A48	1058	0	1354	1047	1.011	1044	140.0	462.620	F
3 - Capel Edeyrn	317	0	2096	553	0.573	320	1.4	15.639	C
4 - A4232	1634	538	222	1995	0.549	1099	1.2	4.036	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	878	0	923	1428	0.614	887	1.6	6.766	A
2 - A48	886	0	1000	1224	0.724	1215	57.6	294.860	F
3 - Capel Edeyrn	265	0	1973	602	0.441	268	0.8	10.838	B
4 - A4232	1368	450	183	2015	0.455	919	0.8	3.290	A

2028 + Com Dev + Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	56.01	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	697	100.000
2 - A48		✓	785	100.000
3 - Capel Edeyrn		✓	495	100.000
4 - A4232		✓	2982	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	16	1	177	503
	2 - A48	2	2	9	772
	3 - Capel Edeyrn	351	26	0	118
	4 - A4232	1281	1524	177	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	0.80	18.04	3.7	C
2 - A48	0.69	9.37	2.2	A
3 - Capel Edeyrn	0.66	12.94	1.9	B
4 - A4232	1.03	84.31	48.9	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	525	0	1293	1239	0.424	522	0.7	5.001	A
2 - A48	591	0	653	1398	0.423	588	0.7	4.431	A
3 - Capel Edeyrn	372	0	970	1004	0.371	370	0.6	5.655	A
4 - A4232	2245	917	297	1956	0.679	1320	2.1	5.589	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	627	0	1545	1110	0.565	625	1.3	7.379	A
2 - A48	706	0	782	1333	0.529	704	1.1	5.709	A
3 - Capel Edeyrn	445	0	1161	928	0.479	443	0.9	7.412	A
4 - A4232	2681	1094	356	1926	0.824	1577	4.4	10.052	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	768	0	1802	979	0.784	759	3.4	15.828	C
2 - A48	864	0	942	1253	0.690	860	2.2	9.072	A
3 - Capel Edeyrn	545	0	1416	826	0.659	541	1.9	12.463	B
4 - A4232	3283	1340	434	1886	1.030	1838	30.5	43.640	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

1 - A48	768	0	1832	964	0.797	767	3.7	18.036	C
2 - A48	864	0	952	1248	0.693	864	2.2	9.373	A
3 - Capel Edeyrn	545	0	1425	822	0.662	544	1.9	12.937	B
4 - A4232	3283	1340	437	1884	1.031	1869	48.9	84.311	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	627	0	1723	1020	0.615	635	1.6	9.551	A
2 - A48	706	0	810	1319	0.535	710	1.2	5.953	A
3 - Capel Edeyrn	445	0	1175	922	0.482	448	0.9	7.656	A
4 - A4232	2681	1094	360	1924	0.825	1761	5.2	37.164	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	525	0	1313	1229	0.427	529	0.8	5.165	A
2 - A48	591	0	662	1393	0.424	593	0.7	4.505	A
3 - Capel Edeyrn	372	0	979	1001	0.372	374	0.6	5.756	A
4 - A4232	2245	917	300	1955	0.680	1341	2.2	5.975	A

2028 + Com Dev + Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	4 - A4232 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	249.43	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A48		✓	1387	100.000
2 - A48		✓	1152	100.000
3 - Capel Edeyrn		✓	335	100.000
4 - A4232		✓	1810	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	70	0	177	1140
	2 - A48	2	14	18	1118
	3 - Capel Edeyrn	140	17	0	178
	4 - A4232	647	1013	150	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A48	2 - A48	3 - Capel Edeyrn	4 - A4232
From	1 - A48	0	0	0	0
	2 - A48	0	0	0	0
	3 - Capel Edeyrn	0	0	0	0
	4 - A4232	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A48	1.24	388.31	158.3	F
2 - A48	1.24	532.72	148.9	F
3 - Capel Edeyrn	0.66	18.97	1.9	C
4 - A4232	0.66	5.41	2.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1044	0	895	1443	0.724	1034	2.5	8.613	A
2 - A48	867	0	1147	1151	0.754	855	2.9	11.777	B
3 - Capel Edeyrn	253	0	1745	694	0.364	250	0.6	8.076	A

4 - A4232	1362	463	181	2016	0.446	896	0.8	3.205	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1247	0	1071	1353	0.922	1222	8.7	24.026	C
2 - A48	1035	0	1357	1045	0.990	988	14.7	44.235	E
3 - Capel Edeyrn	302	0	2039	576	0.524	300	1.1	12.939	B
4 - A4232	1627	553	216	1998	0.538	1073	1.2	3.884	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1527	0	1308	1232	1.240	1227	83.9	145.393	F
2 - A48	1268	0	1391	1028	1.233	1025	75.6	169.503	F
3 - Capel Edeyrn	369	0	2079	560	0.660	366	1.8	18.306	C
4 - A4232	1993	677	248	1982	0.664	1313	1.9	5.351	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1527	0	1311	1230	1.242	1230	158.3	351.965	F
2 - A48	1268	0	1395	1026	1.236	1026	136.1	383.171	F
3 - Capel Edeyrn	369	0	2083	558	0.662	369	1.9	18.974	C
4 - A4232	1993	677	249	1981	0.664	1316	2.0	5.406	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1247	0	1075	1351	0.923	1342	134.5	388.313	F
2 - A48	1035	0	1477	985	1.051	984	148.9	532.716	F
3 - Capel Edeyrn	302	0	2140	535	0.563	304	1.3	15.702	C
4 - A4232	1627	553	224	1994	0.539	1077	1.2	3.938	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A48	1044	0	901	1440	0.725	1429	38.3	220.377	F
2 - A48	867	0	1542	952	0.910	946	129.1	529.392	F
3 - Capel Edeyrn	253	0	2178	520	0.486	254	1.0	13.614	B
4 - A4232	1362	463	204	2004	0.449	901	0.8	3.268	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 11_A4232_Church_Rd_Heol_Pontprennau_CAL.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\ARCADY
Report generation date: 11/05/2020 12:52:04

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev, Weekday AM Peak
»2023 + Com Dev, Weekday PM Peak
»2023 + Com Dev + Dev, Weekday AM Peak
»2023 + Com Dev + Dev, Weekday PM Peak
»2028 + Com Dev, Weekday AM Peak
»2028 + Com Dev, Weekday PM Peak
»2028 + Com Dev + Dev, Weekday AM Peak
»2028 + Com Dev + Dev, Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
1 - Pentwyn Link Rd	4.7	7.60	0.83	A	1.4	3.04	0.59	A
2 - Church Rd	0.5	9.68	0.32	A	0.2	4.66	0.19	A
3 - A4232	0.9	2.99	0.47	A	1.8	4.78	0.64	A
4 - Heol Pontprennau	3.7	12.20	0.79	B	3.3	12.76	0.77	B
	2023 + Com Dev							
1 - Pentwyn Link Rd	32.8	44.52	0.99	E	4.3	7.27	0.82	A
2 - Church Rd	215.9	1173.30	1.92	F	1.7	11.86	0.63	B
3 - A4232	1.6	4.61	0.62	A	14.2	31.40	0.95	D
4 - Heol Pontprennau	186.1	468.87	1.28	F	273.2	805.58	1.54	F
	2023 + Com Dev + Dev							
1 - Pentwyn Link Rd	57.3	69.66	1.03	F	4.3	7.23	0.82	A
2 - Church Rd	261.0	1500.49	2.03	F	1.7	11.90	0.63	B
3 - A4232	1.6	4.57	0.62	A	22.8	47.16	0.98	E
4 - Heol Pontprennau	196.6	490.82	1.30	F	318.8	1014.98	1.61	F
	2028 + Com Dev							
1 - Pentwyn Link Rd	44.5	56.81	1.01	F	4.6	7.65	0.83	A
2 - Church Rd	239.3	1396.16	1.98	F	1.8	12.63	0.65	B
3 - A4232	1.7	4.73	0.63	A	18.1	39.03	0.97	E

4 - Heol Pontprennau	205.9	527.72	1.31	F	301.1	952.98	1.58	F
	2028 + Com Dev + Dev							
1 - Pentwyn Link Rd	121.5	132.92	1.08	F	4.3	7.08	0.81	A
2 - Church Rd	306.5	1996.21	2.10	F	1.7	11.83	0.63	B
3 - A4232	1.4	4.17	0.59	A	54.1	94.00	1.04	F
4 - Heol Pontprennau	182.9	426.95	1.27	F	343.6	1150.17	1.61	F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	03/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pentwyn Link Rd	
2	Church Rd	
3	A4232	
4	Heol Pontprennau	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Pentwyn Link Rd	7.52	11.70	50.0	57.1	69.0	32.6	
2 - Church Rd	3.14	11.48	26.6	74.0	69.0	29.3	
3 - A4232	8.00	8.17	15.1	48.4	69.0	24.2	
4 - Heol Pontprennau	3.97	10.20	59.5	55.5	69.0	30.9	

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - Pentwyn Link Rd		
2 - Church Rd		
3 - A4232	✓	95
4 - Heol Pontprennau		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - Pentwyn Link Rd				0.778	3352
2 - Church Rd				0.614	2297
3 - A4232				0.664	2594
4 - Heol Pontprennau	✓	0.674	2175	0.674	2175

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	2076	100.000
2 - Church Rd		✓	158	100.000
3 - A4232		✓	1223	100.000
4 - Heol Pontprennau		✓	1017	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	97	1643	335
	2 - Church Rd	63	0	79	16
	3 - A4232	896	68	0	259
	4 - Heol Pontprennau	389	15	597	16

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	0.83	7.60	4.7	A
2 - Church Rd	0.32	9.68	0.5	A
3 - A4232	0.47	2.99	0.9	A
4 - Heol Pontprennau	0.79	12.20	3.7	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1563	0	522	2947	0.530	1558	1.1	2.584	A
2 - Church Rd	119	0	1945	1103	0.108	119	0.1	3.653	A
3 - A4232	921	185	323	2380	0.309	733	0.4	2.184	A
4 - Heol Pontprennau	766	0	771	1655	0.463	762	0.9	4.015	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1866	0	624	2867	0.651	1863	1.8	3.575	A
2 - Church Rd	142	0	2326	869	0.163	142	0.2	4.945	A
3 - A4232	1099	221	386	2338	0.375	877	0.6	2.462	A
4 - Heol Pontprennau	914	0	922	1554	0.589	912	1.4	5.593	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2285	0	761	2761	0.828	2274	4.6	7.242	A
2 - Church Rd	174	0	2837	555	0.314	173	0.5	9.397	A
3 - A4232	1346	271	471	2282	0.471	1074	0.9	2.978	A
4 - Heol Pontprennau	1120	0	1129	1414	0.792	1111	3.6	11.555	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2285	0	766	2757	0.829	2285	4.7	7.604	A
2 - Church Rd	174	0	2852	546	0.319	174	0.5	9.679	A
3 - A4232	1346	271	474	2280	0.472	1075	0.9	2.987	A
4 - Heol Pontprennau	1120	0	1130	1413	0.792	1119	3.7	12.196	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1866	0	631	2862	0.652	1877	1.9	3.700	A
2 - Church Rd	142	0	2346	857	0.166	143	0.2	5.052	A
3 - A4232	1099	221	389	2336	0.376	879	0.6	2.472	A
4 - Heol Pontprennau	914	0	924	1552	0.589	923	1.5	5.806	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1563	0	525	2944	0.531	1566	1.1	2.617	A
2 - Church Rd	119	0	1955	1097	0.109	119	0.1	3.686	A
3 - A4232	921	185	325	2379	0.309	736	0.4	2.191	A
4 - Heol Pontprennau	766	0	774	1654	0.463	768	0.9	4.075	A

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	1518	100.000
2 - Church Rd		✓	165	100.000
3 - A4232		✓	1846	100.000
4 - Heol Pontprennau		✓	860	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	39	942	537
	2 - Church Rd	80	0	56	28
	3 - A4232	1144	53	0	649
	4 - Heol Pontprennau	331	19	487	23

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	0.59	3.04	1.4	A
2 - Church Rd	0.19	4.66	0.2	A
3 - A4232	0.64	4.78	1.8	A
4 - Heol Pontprennau	0.77	12.76	3.3	B

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1142	0	436	3013	0.379	1140	0.6	1.919	A
2 - Church Rd	124	0	1493	1381	0.090	124	0.1	2.864	A
3 - A4232	1390	464	502	2261	0.409	923	0.7	2.683	A
4 - Heol Pontprennau	647	0	959	1529	0.423	644	0.7	4.057	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1364	0	522	2947	0.463	1363	0.9	2.272	A
2 - Church Rd	148	0	1786	1201	0.123	148	0.1	3.418	A
3 - A4232	1660	554	600	2196	0.503	1104	1.0	3.293	A
4 - Heol Pontprennau	773	0	1147	1402	0.551	771	1.2	5.688	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1671	0	636	2858	0.585	1669	1.4	3.022	A
2 - Church Rd	181	0	2183	957	0.189	181	0.2	4.636	A
3 - A4232	2033	679	734	2107	0.642	1350	1.8	4.739	A
4 - Heol Pontprennau	947	0	1403	1229	0.770	939	3.2	12.081	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1671	0	640	2854	0.585	1671	1.4	3.041	A
2 - Church Rd	181	0	2189	953	0.190	181	0.2	4.664	A
3 - A4232	2033	679	736	2106	0.643	1353	1.8	4.782	A
4 - Heol Pontprennau	947	0	1406	1227	0.771	946	3.3	12.762	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1364	0	528	2942	0.464	1366	0.9	2.288	A
2 - Church Rd	148	0	1795	1195	0.124	148	0.1	3.438	A
3 - A4232	1660	554	602	2195	0.503	1108	1.0	3.320	A
4 - Heol Pontprennau	773	0	1151	1399	0.552	781	1.3	5.900	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1142	0	439	3011	0.379	1143	0.6	1.930	A
2 - Church Rd	124	0	1499	1377	0.090	124	0.1	2.874	A
3 - A4232	1390	464	504	2260	0.409	927	0.7	2.703	A
4 - Heol Pontprennau	647	0	963	1526	0.424	649	0.7	4.115	A

2023 + Com Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	271.58	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	2420	100.000
2 - Church Rd		✓	732	100.000
3 - A4232		✓	1477	100.000
4 - Heol Pontprennau		✓	1439	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	157	1717	545
	2 - Church Rd	216	0	392	123
	3 - A4232	961	188	0	328
	4 - Heol Pontprennau	672	69	682	16

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	0.99	44.52	32.8	E
2 - Church Rd	1.92	1173.30	215.9	F
3 - A4232	0.62	4.61	1.6	A

4 - Heol Pontprennau	1.28	468.87	186.1	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1822	0	713	2798	0.651	1814	1.8	3.635	A
2 - Church Rd	551	0	2217	936	0.588	545	1.4	9.085	A
3 - A4232	1112	235	674	2147	0.408	874	0.7	2.822	A
4 - Heol Pontprennau	1083	0	1023	1485	0.729	1073	2.6	8.525	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2175	0	839	2700	0.806	2167	4.0	6.649	A
2 - Church Rd	658	0	2636	679	0.969	623	10.1	48.163	E
3 - A4232	1328	280	791	2069	0.506	1046	1.0	3.513	A
4 - Heol Pontprennau	1294	0	1215	1356	0.954	1258	11.6	29.444	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2664	0	864	2681	0.994	2585	23.7	26.626	D
2 - Church Rd	806	0	3015	446	1.806	445	100.2	473.178	F
3 - A4232	1626	343	803	2062	0.622	1280	1.6	4.593	A
4 - Heol Pontprennau	1584	0	1394	1236	1.282	1232	99.7	171.367	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2664	0	867	2678	0.995	2628	32.8	44.522	E
2 - Church Rd	806	0	3058	420	1.918	420	196.6	1040.576	F
3 - A4232	1626	343	801	2063	0.622	1283	1.6	4.613	A
4 - Heol Pontprennau	1584	0	1389	1239	1.279	1239	186.1	409.314	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2175	0	892	2659	0.818	2288	4.7	12.533	B
2 - Church Rd	658	0	2796	581	1.133	581	215.9	1173.296	F
3 - A4232	1328	280	800	2064	0.508	1050	1.0	3.561	A
4 - Heol Pontprennau	1294	0	1206	1362	0.950	1355	170.8	468.870	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1822	0	899	2653	0.687	1832	2.2	4.435	A
2 - Church Rd	551	0	2401	823	0.669	819	148.9	802.741	F

3 - A4232	1112	235	808	2058	0.426	878	0.7	3.056	A
4 - Heol Pontprennau	1083	0	1108	1428	0.758	1420	86.6	327.777	F

2023 + Com Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	188.50	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	1972	100.000
2 - Church Rd		✓	473	100.000
3 - A4232		✓	2264	100.000
4 - Heol Pontprennau		✓	1291	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	178	1006	788
	2 - Church Rd	160	0	218	95
	3 - A4232	1195	340	0	730
	4 - Heol Pontprennau	576	122	569	24

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	0.82	7.27	4.3	A
2 - Church Rd	0.63	11.86	1.7	B
3 - A4232	0.95	31.40	14.2	D
4 - Heol Pontprennau	1.54	805.58	273.2	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1485	0	787	2740	0.542	1480	1.2	2.845	A
2 - Church Rd	356	0	1788	1200	0.297	355	0.4	4.252	A
3 - A4232	1704	522	801	2063	0.573	1177	1.3	4.040	A
4 - Heol Pontprennau	972	0	1270	1319	0.737	961	2.7	9.820	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1773	0	913	2642	0.671	1769	2.0	4.108	A
2 - Church Rd	426	0	2114	999	0.426	424	0.7	6.250	A
3 - A4232	2035	623	957	1960	0.721	1407	2.5	6.464	A
4 - Heol Pontprennau	1161	0	1518	1152	1.008	1099	18.0	46.175	E

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2171	0	888	2662	0.816	2162	4.2	7.075	A
2 - Church Rd	521	0	2400	824	0.633	518	1.7	11.607	B
3 - A4232	2493	763	1161	1824	0.948	1692	11.9	22.724	C
4 - Heol Pontprennau	1421	0	1828	943	1.507	942	137.8	308.442	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2171	0	883	2665	0.815	2171	4.3	7.267	A
2 - Church Rd	521	0	2399	824	0.632	521	1.7	11.860	B
3 - A4232	2493	763	1166	1821	0.950	1721	14.2	31.396	D
4 - Heol Pontprennau	1421	0	1857	923	1.539	923	262.3	719.762	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1773	0	934	2626	0.675	1781	2.1	4.306	A
2 - Church Rd	426	0	2133	987	0.431	429	0.8	6.494	A
3 - A4232	2035	623	965	1954	0.723	1458	2.7	7.909	A
4 - Heol Pontprennau	1161	0	1569	1117	1.039	1117	273.2	805.585	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1485	0	980	2590	0.573	1488	1.4	3.273	A
2 - Church Rd	356	0	1953	1098	0.325	358	0.5	4.869	A
3 - A4232	1704	522	812	2056	0.575	1188	1.4	4.173	A
4 - Heol Pontprennau	972	0	1281	1311	0.741	1307	189.5	638.155	F

2023 + Com Dev + Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	323.87	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	2489	100.000
2 - Church Rd		✓	734	100.000
3 - A4232		✓	1486	100.000
4 - Heol Pontprennau		✓	1456	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	157	1786	545
	2 - Church Rd	216	0	395	123
	3 - A4232	967	189	0	330
	4 - Heol Pontprennau	672	69	699	16

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	1.03	69.66	57.3	F
2 - Church Rd	2.03	1500.49	261.0	F

3 - A4232	0.62	4.57	1.6	A
4 - Heol Pontprennau	1.30	490.82	196.6	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1874	0	726	2788	0.672	1865	2.0	3.871	A
2 - Church Rd	553	0	2280	897	0.616	547	1.6	10.099	B
3 - A4232	1119	236	673	2148	0.411	880	0.7	2.833	A
4 - Heol Pontprennau	1096	0	1028	1482	0.740	1085	2.7	8.842	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2237	0	852	2690	0.832	2226	4.7	7.602	A
2 - Church Rd	660	0	2708	634	1.041	602	16.1	72.010	F
3 - A4232	1336	282	780	2077	0.507	1052	1.0	3.509	A
4 - Heol Pontprennau	1309	0	1215	1356	0.965	1268	12.9	31.758	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2740	0	871	2675	1.024	2616	35.7	35.653	E
2 - Church Rd	808	0	3056	421	1.920	421	113.1	582.371	F
3 - A4232	1636	345	781	2076	0.622	1288	1.6	4.555	A
4 - Heol Pontprennau	1603	0	1394	1236	1.297	1233	105.5	181.437	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2740	0	875	2672	1.025	2654	57.3	69.664	F
2 - Church Rd	808	0	3094	398	2.033	398	215.8	1500.493	F
3 - A4232	1636	345	779	2078	0.621	1290	1.6	4.573	A
4 - Heol Pontprennau	1603	0	1389	1239	1.294	1238	196.6	430.264	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2237	0	908	2646	0.846	2442	6.1	30.150	D
2 - Church Rd	660	0	2961	479	1.378	479	261.0	1452.448	F
3 - A4232	1336	282	772	2082	0.506	1056	1.0	3.517	A
4 - Heol Pontprennau	1309	0	1182	1378	0.950	1371	181.0	490.821	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1874	0	910	2645	0.708	1888	2.5	4.845	A

2 - Church Rd	553	0	2469	782	0.707	779	204.6	1077.202	F
3 - A4232	1119	236	789	2071	0.426	884	0.7	3.034	A
4 - Heol Pontprennau	1096	0	1100	1434	0.765	1426	98.6	354.333	F

2023 + Com Dev + Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	238.61	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	1981	100.000
2 - Church Rd		✓	474	100.000
3 - A4232		✓	2332	100.000
4 - Heol Pontprennau		✓	1304	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	178	1015	788
	2 - Church Rd	160	0	219	95
	3 - A4232	1250	340	0	743
	4 - Heol Pontprennau	576	122	582	24

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	0.82	7.23	4.3	A
2 - Church Rd	0.63	11.90	1.7	B
3 - A4232	0.98	47.16	22.8	E
4 - Heol Pontprennau	1.61	1014.98	318.8	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1491	0	796	2733	0.546	1487	1.2	2.877	A
2 - Church Rd	357	0	1804	1190	0.300	355	0.4	4.304	A
3 - A4232	1756	531	801	2063	0.594	1219	1.4	4.235	A
4 - Heol Pontprennau	982	0	1311	1291	0.760	970	3.0	10.818	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1781	0	910	2645	0.673	1778	2.0	4.134	A
2 - Church Rd	426	0	2122	995	0.429	425	0.7	6.306	A
3 - A4232	2097	635	956	1960	0.746	1457	2.9	7.073	A
4 - Heol Pontprennau	1172	0	1567	1119	1.048	1084	25.0	59.790	F

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2181	0	873	2674	0.816	2172	4.3	7.056	A
2 - Church Rd	522	0	2402	822	0.635	518	1.7	11.694	B
3 - A4232	2568	777	1160	1824	0.982	1734	17.2	29.461	D
4 - Heol Pontprennau	1436	0	1869	915	1.569	915	155.2	366.505	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2181	0	867	2678	0.814	2181	4.3	7.229	A
2 - Church Rd	522	0	2399	824	0.633	522	1.7	11.898	B
3 - A4232	2568	777	1165	1821	0.983	1768	22.8	47.158	E
4 - Heol Pontprennau	1436	0	1904	892	1.610	892	291.3	829.499	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1781	0	915	2641	0.674	1790	2.1	4.271	A
2 - Church Rd	426	0	2122	994	0.429	430	0.8	6.421	A
3 - A4232	2097	635	963	1955	0.748	1541	3.1	10.367	B
4 - Heol Pontprennau	1172	0	1651	1062	1.104	1062	318.8	1014.982	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1491	0	971	2597	0.574	1494	1.4	3.272	A
2 - Church Rd	357	0	1954	1097	0.325	358	0.5	4.878	A
3 - A4232	1756	531	811	2056	0.596	1231	1.5	4.394	A
4 - Heol Pontprennau	982	0	1324	1283	0.765	1279	244.6	793.536	F

2028 + Com Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	315.64	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	2461	100.000
2 - Church Rd		✓	735	100.000
3 - A4232		✓	1501	100.000
4 - Heol Pontprennau		✓	1460	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	159	1749	552
	2 - Church Rd	217	0	394	124
	3 - A4232	978	190	0	333
	4 - Heol Pontprennau	679	70	694	17

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	1.01	56.81	44.5	F
2 - Church Rd	1.98	1396.16	239.3	F
3 - A4232	0.63	4.73	1.7	A

4 - Heol Pontprennau	1.31	527.72	205.9	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1853	0	724	2789	0.664	1845	2.0	3.782	A
2 - Church Rd	553	0	2255	913	0.606	547	1.5	9.701	A
3 - A4232	1130	238	680	2143	0.416	889	0.7	2.865	A
4 - Heol Pontprennau	1099	0	1038	1475	0.745	1088	2.8	9.050	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2212	0	848	2693	0.822	2202	4.4	7.198	A
2 - Church Rd	661	0	2677	654	1.010	613	13.4	61.503	F
3 - A4232	1349	284	793	2068	0.515	1063	1.1	3.579	A
4 - Heol Pontprennau	1313	0	1230	1346	0.975	1267	14.2	34.157	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2709	0	862	2682	1.010	2609	29.6	31.180	D
2 - Church Rd	809	0	3034	434	1.863	434	107.2	529.565	F
3 - A4232	1653	348	801	2063	0.632	1302	1.7	4.710	A
4 - Heol Pontprennau	1607	0	1411	1224	1.314	1221	110.8	192.600	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2709	0	865	2680	1.011	2650	44.5	56.815	F
2 - Church Rd	809	0	3076	409	1.979	409	207.3	1396.156	F
3 - A4232	1653	348	798	2065	0.632	1304	1.7	4.733	A
4 - Heol Pontprennau	1607	0	1407	1227	1.310	1227	205.9	454.907	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2212	0	895	2657	0.833	2369	5.3	18.830	C
2 - Church Rd	661	0	2875	532	1.241	532	239.3	1310.310	F
3 - A4232	1349	284	794	2067	0.515	1067	1.1	3.610	A
4 - Heol Pontprennau	1313	0	1210	1360	0.965	1353	195.8	527.722	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1853	0	900	2653	0.698	1865	2.4	4.635	A
2 - Church Rd	553	0	2433	803	0.689	800	177.6	938.918	F

3 - A4232	1130	238	806	2060	0.433	893	0.8	3.088	A
4 - Heol Pontprennau	1099	0	1117	1422	0.773	1415	116.8	398.760	F

2028 + Com Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	222.97	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	2000	100.000
2 - Church Rd		✓	476	100.000
3 - A4232		✓	2298	100.000
4 - Heol Pontprennau		✓	1306	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	179	1023	798
	2 - Church Rd	162	0	219	96
	3 - A4232	1216	341	0	741
	4 - Heol Pontprennau	582	122	578	24

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	0.83	7.65	4.6	A
2 - Church Rd	0.65	12.63	1.8	B
3 - A4232	0.97	39.03	18.1	E
4 - Heol Pontprennau	1.58	952.98	301.1	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1505	0	794	2735	0.550	1501	1.2	2.906	A
2 - Church Rd	359	0	1814	1183	0.303	357	0.4	4.348	A
3 - A4232	1730	530	810	2057	0.583	1194	1.4	4.144	A
4 - Heol Pontprennau	983	0	1287	1307	0.752	972	2.9	10.394	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1798	0	913	2642	0.680	1794	2.1	4.227	A
2 - Church Rd	428	0	2139	984	0.435	427	0.8	6.450	A
3 - A4232	2066	633	967	1953	0.733	1427	2.7	6.785	A
4 - Heol Pontprennau	1174	0	1539	1138	1.032	1097	22.1	54.004	F

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2202	0	881	2667	0.825	2192	4.5	7.427	A
2 - Church Rd	525	0	2425	808	0.649	521	1.8	12.341	B
3 - A4232	2530	776	1173	1816	0.966	1707	14.4	26.145	D
4 - Heol Pontprennau	1438	0	1844	932	1.543	931	148.8	341.655	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2202	0	876	2671	0.824	2201	4.6	7.651	A
2 - Church Rd	525	0	2424	809	0.648	524	1.8	12.635	B
3 - A4232	2530	776	1179	1812	0.968	1739	18.1	39.030	E
4 - Heol Pontprennau	1438	0	1877	910	1.580	910	280.8	782.303	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1798	0	925	2633	0.683	1807	2.2	4.409	A
2 - Church Rd	428	0	2149	978	0.438	432	0.8	6.650	A
3 - A4232	2066	633	975	1947	0.736	1493	2.9	8.978	A
4 - Heol Pontprennau	1174	0	1605	1093	1.074	1093	301.1	952.979	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1505	0	976	2594	0.580	1509	1.4	3.326	A
2 - Church Rd	359	0	1971	1087	0.330	360	0.5	4.957	A
3 - A4232	1730	530	820	2050	0.585	1205	1.4	4.289	A
4 - Heol Pontprennau	983	0	1299	1299	0.757	1295	223.2	729.272	F

2028 + Com Dev + Dev, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	391.39	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	2610	100.000
2 - Church Rd		✓	728	100.000
3 - A4232		✓	1410	100.000
4 - Heol Pontprennau		✓	1472	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	159	1899	552
	2 - Church Rd	217	0	387	124
	3 - A4232	917	186	0	306
	4 - Heol Pontprennau	679	70	706	17

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	1.08	132.92	121.5	F
2 - Church Rd	2.10	1996.21	306.5	F

3 - A4232	0.59	4.17	1.4	A
4 - Heol Pontprennau	1.27	426.95	182.9	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1965	0	731	2784	0.706	1956	2.4	4.300	A
2 - Church Rd	548	0	2375	839	0.653	541	1.8	11.806	B
3 - A4232	1061	219	679	2144	0.393	839	0.6	2.754	A
4 - Heol Pontprennau	1108	0	989	1508	0.735	1098	2.7	8.557	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2346	0	862	2682	0.875	2330	6.4	9.813	A
2 - Church Rd	654	0	2821	565	1.158	550	27.9	121.309	F
3 - A4232	1267	262	765	2087	0.482	1004	0.9	3.323	A
4 - Heol Pontprennau	1323	0	1155	1397	0.947	1290	11.0	27.686	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2874	0	892	2659	1.081	2634	66.4	57.108	F
2 - Church Rd	801	0	3099	394	2.032	394	129.7	747.889	F
3 - A4232	1552	321	756	2092	0.588	1229	1.4	4.162	A
4 - Heol Pontprennau	1621	0	1330	1278	1.268	1275	97.5	162.137	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2874	0	894	2657	1.082	2653	121.5	132.922	F
2 - Church Rd	801	0	3120	382	2.099	382	234.6	1729.417	F
3 - A4232	1552	321	755	2094	0.588	1231	1.4	4.175	A
4 - Heol Pontprennau	1621	0	1328	1280	1.267	1279	182.9	387.751	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2346	0	935	2625	0.894	2604	57.2	125.187	F
2 - Church Rd	654	0	3144	367	1.784	367	306.5	1996.209	F
3 - A4232	1267	262	739	2104	0.478	1007	0.9	3.290	A
4 - Heol Pontprennau	1323	0	1103	1432	0.924	1424	157.8	426.955	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1965	0	941	2620	0.750	2181	3.1	13.439	B

2 - Church Rd	548	0	2778	591	0.927	589	296.1	1840.393	F
3 - A4232	1061	219	755	2094	0.402	843	0.7	2.879	A
4 - Heol Pontprennau	1108	0	1007	1496	0.741	1487	63.2	269.413	F

2028 + Com Dev + Dev, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Pentwyn Link Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Heol Pontprennau - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	276.57	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Pentwyn Link Rd		✓	2000	100.000
2 - Church Rd		✓	472	100.000
3 - A4232		✓	2450	100.000
4 - Heol Pontprennau		✓	1272	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	179	1023	798
	2 - Church Rd	162	0	215	96
	3 - A4232	1344	332	0	775
	4 - Heol Pontprennau	571	122	555	24

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Pentwyn Link Rd	2 - Church Rd	3 - A4232	4 - Heol Pontprennau
From	1 - Pentwyn Link Rd	0	0	0	0
	2 - Church Rd	0	0	0	0
	3 - A4232	0	0	0	0
	4 - Heol Pontprennau	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Pentwyn Link Rd	0.81	7.08	4.3	A
2 - Church Rd	0.63	11.83	1.7	B
3 - A4232	1.04	94.00	54.1	F
4 - Heol Pontprennau	1.61	1150.17	343.6	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1505	0	769	2754	0.547	1501	1.2	2.862	A
2 - Church Rd	356	0	1797	1194	0.298	354	0.4	4.275	A
3 - A4232	1845	554	810	2057	0.627	1284	1.7	4.616	A
4 - Heol Pontprennau	958	0	1376	1248	0.768	945	3.1	11.474	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1798	0	870	2676	0.672	1794	2.0	4.067	A
2 - Church Rd	425	0	2107	1004	0.423	423	0.7	6.192	A
3 - A4232	2203	662	967	1953	0.789	1533	3.6	8.425	A
4 - Heol Pontprennau	1144	0	1644	1067	1.071	1040	29.0	69.426	F

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2201	0	832	2705	0.814	2193	4.2	6.911	A
2 - Church Rd	520	0	2401	823	0.632	516	1.7	11.591	B
3 - A4232	2698	810	1173	1816	1.039	1772	32.4	46.172	E
4 - Heol Pontprennau	1400	0	1909	889	1.576	888	157.1	388.860	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	2201	0	827	2709	0.813	2201	4.3	7.078	A
2 - Church Rd	520	0	2400	824	0.631	520	1.7	11.829	B
3 - A4232	2698	810	1178	1812	1.041	1801	54.1	93.996	F
4 - Heol Pontprennau	1400	0	1938	869	1.612	869	290.1	895.053	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1798	0	849	2692	0.668	1806	2.0	4.105	A
2 - Church Rd	425	0	2068	1028	0.413	428	0.7	6.046	A
3 - A4232	2203	662	972	1949	0.791	1741	4.1	32.785	D
4 - Heol Pontprennau	1144	0	1848	929	1.231	929	343.6	1150.173	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Pentwyn Link Rd	1505	0	931	2628	0.573	1508	1.4	3.220	A
2 - Church Rd	356	0	1934	1110	0.320	356	0.5	4.787	A
3 - A4232	1845	554	819	2051	0.629	1300	1.7	4.856	A
4 - Heol Pontprennau	958	0	1393	1236	0.775	1233	274.8	903.476	F

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 16_Rover_Way_Lamby_Way.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\ARCADY
Report generation date: 11/05/2020 12:54:48

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
1 - Lamby Way	8.3	33.40	0.90	D	4.8	19.09	0.83	C
2 - Rover Way	9.1	26.92	0.90	D	4.5	13.96	0.81	B
3 - Rover Way	1.3	7.28	0.56	A	1.1	6.15	0.52	A
4 - A4232	70.8	129.82	1.07	F	5.9	15.61	0.85	C
	2023 + Com Dev							
1 - Lamby Way	15.1	56.45	0.96	F	9.8	37.60	0.92	E
2 - Rover Way	23.2	60.25	0.99	F	11.2	31.87	0.93	D
3 - Rover Way	1.6	8.67	0.61	A	1.4	7.54	0.58	A
4 - A4232	172.3	338.98	1.20	F	15.0	36.64	0.95	E
	2023 + Com Dev + Dev							
1 - Lamby Way	15.2	56.76	0.96	F	10.4	39.65	0.93	E
2 - Rover Way	26.0	66.02	1.00	F	11.6	32.77	0.93	D
3 - Rover Way	1.7	8.91	0.62	A	1.4	7.57	0.58	A
4 - A4232	173.1	341.93	1.20	F	17.1	41.04	0.96	E
	2028 + Com Dev							
1 - Lamby Way	18.2	65.66	0.97	F	12.3	45.95	0.95	E
2 - Rover Way	30.3	74.59	1.01	F	13.8	38.47	0.95	E
3 - Rover Way	1.7	9.12	0.63	A	1.5	7.92	0.60	A

4 - A4232	194.4	397.75	1.22	F	19.4	45.86	0.97	E
	2028 + Com Dev + Dev							
1 - Lamby Way	14.7	55.05	0.96	F	13.5	50.19	0.95	F
2 - Rover Way	33.4	80.48	1.01	F	14.5	40.31	0.95	E
3 - Rover Way	1.8	9.21	0.63	A	1.4	7.82	0.59	A
4 - A4232	194.3	398.52	1.22	F	21.9	50.64	0.98	F

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

File summary

File Description

Title	
Location	
Site number	
Date	11/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	64.17	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Lamby Way	
2	Rover Way	
3	Rover Way	
4	A4232	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Lamby Way	3.52	6.12	27.3	57.0	88.4	20.0	
2 - Rover Way	4.90	7.67	9.5	27.3	88.4	25.0	
3 - Rover Way	4.18	6.86	25.2	65.0	88.4	14.0	
4 - A4232	7.46	7.50	1.6	18.0	88.4	46.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Lamby Way	0.484	1781
2 - Rover Way	0.504	1978
3 - Rover Way	0.526	2040
4 - A4232	0.506	2133

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)

D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	869	100.000
2 - Rover Way		✓	1178	100.000
3 - Rover Way		✓	604	100.000
4 - A4232		✓	1599	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	**2 - Rover Way**	**3 - Rover Way**	**4 - A4232**
From	**1 - Lamby Way**	0	245	248	376
	2 - Rover Way	503	0	68	607
	3 - Rover Way	234	140	0	231
	4 - A4232	305	910	383	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	**2 - Rover Way**	**3 - Rover Way**	**4 - A4232**
From	**1 - Lamby Way**	0	4	18	15
	2 - Rover Way	7	0	10	18
	3 - Rover Way	7	2	0	4
	4 - A4232	16	11	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.90	33.40	8.3	D
2 - Rover Way	0.90	26.92	9.1	D
3 - Rover Way	0.56	7.28	1.3	A
4 - A4232	1.07	129.82	70.8	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	654	1072	1263	0.518	649	1.2	6.558	A
2 - Rover Way	887	752	1598	0.555	881	1.4	5.624	A
3 - Rover Way	455	1111	1456	0.312	453	0.5	3.756	A
4 - A4232	1204	657	1801	0.668	1195	2.2	6.410	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	781	1280	1162	0.672	777	2.2	10.401	B
2 - Rover Way	1059	899	1524	0.695	1054	2.5	8.593	A
3 - Rover Way	543	1330	1341	0.405	542	0.7	4.716	A
4 - A4232	1437	786	1735	0.828	1426	4.9	12.323	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	956	1463	1074	0.891	936	7.2	26.426	D
2 - Rover Way	1297	1060	1443	0.898	1275	8.0	21.706	C
3 - Rover Way	665	1606	1196	0.556	663	1.3	7.050	A
4 - A4232	1760	955	1650	1.067	1618	40.4	60.888	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	956	1480	1065	0.898	952	8.3	33.398	D
2 - Rover Way	1297	1076	1435	0.904	1292	9.1	26.919	D
3 - Rover Way	665	1630	1183	0.562	665	1.3	7.276	A
4 - A4232	1760	964	1645	1.070	1639	70.8	129.816	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	781	1494	1059	0.738	801	3.4	16.766	C
2 - Rover Way	1059	980	1484	0.714	1084	2.9	10.736	B
3 - Rover Way	543	1368	1321	0.411	545	0.7	4.878	A
4 - A4232	1437	800	1728	0.832	1690	7.5	85.965	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	654	1096	1251	0.523	662	1.3	6.982	A
2 - Rover Way	887	769	1590	0.558	893	1.4	5.873	A
3 - Rover Way	455	1128	1447	0.314	456	0.5	3.811	A
4 - A4232	1204	663	1797	0.670	1225	2.3	7.118	A

2018 Base, Weekday PM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	14.46	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	864	100.000
2 - Rover Way		✓	1091	100.000
3 - Rover Way		✓	592	100.000
4 - A4232		✓	1289	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	275	244	344
	2 - Rover Way	443	0	65	583
	3 - Rover Way	267	132	0	193
	4 - A4232	232	747	311	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	1	2	15
	2 - Rover Way	6	0	2	12
	3 - Rover Way	3	2	0	0
	4 - A4232	22	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.83	19.09	4.8	C
2 - Rover Way	0.81	13.96	4.5	B
3 - Rover Way	0.52	6.15	1.1	A
4 - A4232	0.85	15.61	5.9	C

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	650	891	1350	0.482	646	1.0	5.425	A
2 - Rover Way	821	673	1638	0.501	817	1.1	4.747	A
3 - Rover Way	446	1026	1501	0.297	444	0.4	3.460	A
4 - A4232	970	631	1813	0.535	966	1.2	4.549	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	777	1067	1265	0.614	774	1.7	7.768	A
2 - Rover Way	981	806	1571	0.624	978	1.8	6.573	A
3 - Rover Way	533	1228	1394	0.382	532	0.6	4.242	A
4 - A4232	1159	756	1750	0.662	1155	2.1	6.482	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	951	1298	1153	0.825	940	4.5	17.107	C
2 - Rover Way	1201	979	1484	0.809	1191	4.3	12.943	B
3 - Rover Way	652	1495	1254	0.520	650	1.1	6.047	A
4 - A4232	1419	922	1666	0.852	1405	5.6	14.154	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	951	1309	1148	0.828	950	4.8	19.095	C
2 - Rover Way	1201	989	1479	0.812	1200	4.5	13.962	B
3 - Rover Way	652	1507	1247	0.523	652	1.1	6.152	A
4 - A4232	1419	927	1664	0.853	1418	5.9	15.607	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	777	1082	1258	0.617	789	1.8	8.391	A
2 - Rover Way	981	820	1564	0.627	991	1.9	6.965	A
3 - Rover Way	533	1247	1385	0.385	534	0.6	4.318	A
4 - A4232	1159	763	1747	0.663	1174	2.2	6.941	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	650	899	1347	0.483	653	1.0	5.562	A
2 - Rover Way	821	680	1635	0.502	824	1.1	4.854	A
3 - Rover Way	446	1036	1495	0.298	447	0.4	3.496	A
4 - A4232	970	636	1811	0.536	974	1.3	4.655	A

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	159.81	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	928	100.000
2 - Rover Way		✓	1286	100.000
3 - Rover Way		✓	622	100.000
4 - A4232		✓	1775	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	271	256	401
	2 - Rover Way	525	0	70	691
	3 - Rover Way	241	144	0	237
	4 - A4232	336	1044	394	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	4	18	15
	2 - Rover Way	7	0	10	18
	3 - Rover Way	7	2	0	4
	4 - A4232	16	11	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.96	56.45	15.1	F
2 - Rover Way	0.99	60.25	23.2	F
3 - Rover Way	0.61	8.67	1.6	A
4 - A4232	1.20	338.98	172.3	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	698	1181	1210	0.577	692	1.5	7.733	A
2 - Rover Way	968	784	1582	0.612	961	1.8	6.488	A
3 - Rover Way	468	1208	1405	0.334	466	0.5	4.011	A
4 - A4232	1336	681	1788	0.747	1324	3.1	8.279	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	834	1399	1105	0.755	827	3.3	14.227	B
2 - Rover Way	1156	934	1507	0.767	1149	3.5	11.160	B
3 - Rover Way	559	1444	1281	0.437	558	0.8	5.212	A
4 - A4232	1595	815	1720	0.927	1567	10.3	22.320	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1021	1479	1066	0.958	986	12.1	39.396	E
2 - Rover Way	1416	1060	1443	0.981	1363	16.8	37.315	E
3 - Rover Way	685	1715	1138	0.602	682	1.5	8.218	A
4 - A4232	1954	979	1637	1.193	1630	91.4	121.202	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1021	1480	1065	0.959	1009	15.1	56.455	F
2 - Rover Way	1416	1077	1435	0.987	1390	23.2	60.247	F
3 - Rover Way	685	1751	1119	0.612	685	1.6	8.671	A
4 - A4232	1954	992	1631	1.198	1630	172.3	294.033	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	834	1501	1055	0.790	876	4.7	26.430	D
2 - Rover Way	1156	996	1475	0.784	1232	4.4	21.061	C
3 - Rover Way	559	1543	1229	0.455	562	0.9	5.686	A
4 - A4232	1595	851	1702	0.937	1691	148.4	338.978	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	698	1544	1035	0.675	707	2.4	12.690	B
2 - Rover Way	968	894	1527	0.634	978	2.0	7.543	A
3 - Rover Way	468	1231	1393	0.336	470	0.5	4.092	A
4 - A4232	1336	690	1784	0.749	1770	39.8	193.894	F

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	31.20	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	915	100.000
2 - Rover Way		✓	1229	100.000
3 - Rover Way		✓	609	100.000
4 - A4232		✓	1421	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	290	251	373
	2 - Rover Way	468	0	67	694
	3 - Rover Way	276	136	0	198
	4 - A4232	254	848	319	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	1	2	15
	2 - Rover Way	6	0	2	12
	3 - Rover Way	3	2	0	0
	4 - A4232	22	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.92	37.60	9.8	E
2 - Rover Way	0.93	31.87	11.2	D
3 - Rover Way	0.58	7.54	1.4	A
4 - A4232	0.95	36.64	15.0	E

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	689	975	1310	0.526	684	1.2	6.098	A
2 - Rover Way	925	706	1622	0.570	919	1.4	5.545	A
3 - Rover Way	459	1148	1436	0.319	457	0.5	3.734	A
4 - A4232	1070	659	1800	0.594	1064	1.6	5.233	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	822	1166	1217	0.675	818	2.2	9.540	A
2 - Rover Way	1104	844	1552	0.712	1100	2.6	8.590	A
3 - Rover Way	548	1374	1318	0.416	547	0.7	4.745	A
4 - A4232	1277	788	1734	0.737	1272	2.9	8.307	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1007	1402	1103	0.913	983	8.2	27.797	D
2 - Rover Way	1353	1014	1467	0.922	1325	9.5	24.109	C
3 - Rover Way	671	1654	1170	0.573	669	1.3	7.260	A
4 - A4232	1564	956	1649	0.949	1527	12.4	26.170	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1007	1425	1092	0.922	1000	9.8	37.602	E
2 - Rover Way	1353	1032	1458	0.928	1346	11.2	31.874	D
3 - Rover Way	671	1681	1156	0.580	671	1.4	7.539	A
4 - A4232	1564	966	1644	0.952	1554	15.0	36.638	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	822	1210	1196	0.687	852	2.4	12.066	B
2 - Rover Way	1104	879	1535	0.720	1138	2.9	10.669	B
3 - Rover Way	548	1423	1292	0.424	550	0.8	4.958	A
4 - A4232	1277	805	1725	0.740	1325	3.2	10.762	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	689	986	1304	0.528	694	1.2	6.343	A
2 - Rover Way	925	715	1617	0.572	931	1.5	5.765	A
3 - Rover Way	459	1163	1429	0.321	460	0.5	3.786	A
4 - A4232	1070	665	1796	0.596	1076	1.6	5.439	A

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	162.26	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	928	100.000
2 - Rover Way		✓	1297	100.000
3 - Rover Way		✓	630	100.000
4 - A4232		✓	1777	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	271	256	401
	2 - Rover Way	525	0	70	702
	3 - Rover Way	241	144	0	245
	4 - A4232	336	1045	395	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	4	18	15
	2 - Rover Way	7	0	10	18
	3 - Rover Way	7	2	0	4
	4 - A4232	16	11	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.96	56.76	15.2	F
2 - Rover Way	1.00	66.02	26.0	F
3 - Rover Way	0.62	8.91	1.7	A
4 - A4232	1.20	341.93	173.1	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	698	1182	1209	0.577	692	1.5	7.745	A
2 - Rover Way	977	785	1582	0.617	969	1.8	6.578	A
3 - Rover Way	474	1217	1400	0.338	472	0.5	4.054	A
4 - A4232	1338	681	1788	0.748	1325	3.1	8.305	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	834	1401	1104	0.756	827	3.3	14.267	B
2 - Rover Way	1166	935	1506	0.774	1159	3.7	11.466	B
3 - Rover Way	566	1454	1276	0.444	565	0.8	5.297	A
4 - A4232	1597	815	1721	0.928	1568	10.4	22.492	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1021	1480	1065	0.959	986	12.2	39.546	E
2 - Rover Way	1428	1061	1443	0.990	1370	18.2	39.603	E
3 - Rover Way	693	1722	1135	0.611	690	1.6	8.427	A
4 - A4232	1956	977	1638	1.194	1631	91.8	121.705	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1021	1481	1065	0.959	1009	15.2	56.759	F
2 - Rover Way	1428	1078	1434	0.996	1397	26.0	66.016	F
3 - Rover Way	693	1758	1116	0.621	693	1.7	8.909	A
4 - A4232	1956	990	1632	1.199	1631	173.1	295.264	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	834	1500	1056	0.790	876	4.6	26.443	D
2 - Rover Way	1166	997	1475	0.791	1252	4.6	23.946	C
3 - Rover Way	566	1563	1218	0.465	569	0.9	5.839	A

4 - A4232	1597	855	1700	0.940	1689	150.1	341.935	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	698	1544	1034	0.675	707	2.4	12.694	B
2 - Rover Way	977	895	1526	0.640	987	2.1	7.688	A
3 - Rover Way	474	1239	1388	0.341	475	0.5	4.138	A
4 - A4232	1338	690	1783	0.750	1771	41.9	197.824	F

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	33.43	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	915	100.000
2 - Rover Way		✓	1230	100.000
3 - Rover Way		✓	611	100.000
4 - A4232		✓	1436	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	290	251	373
	2 - Rover Way	468	0	67	695
	3 - Rover Way	276	136	0	200
	4 - A4232	254	857	325	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	1	2	15
	2 - Rover Way	6	0	2	12
	3 - Rover Way	3	2	0	0
	4 - A4232	22	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.93	39.65	10.4	E
2 - Rover Way	0.93	32.77	11.6	D
3 - Rover Way	0.58	7.57	1.4	A
4 - A4232	0.96	41.04	17.1	E

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	689	986	1304	0.528	684	1.2	6.151	A
2 - Rover Way	926	710	1620	0.572	920	1.4	5.570	A
3 - Rover Way	460	1149	1436	0.320	458	0.5	3.740	A
4 - A4232	1081	659	1800	0.601	1075	1.6	5.312	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	822	1180	1211	0.679	818	2.2	9.695	A
2 - Rover Way	1106	849	1549	0.714	1101	2.6	8.665	A
3 - Rover Way	549	1375	1317	0.417	548	0.7	4.757	A
4 - A4232	1291	788	1734	0.745	1286	3.0	8.548	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1007	1415	1097	0.918	982	8.5	28.761	D
2 - Rover Way	1354	1018	1464	0.925	1326	9.7	24.552	C
3 - Rover Way	673	1654	1170	0.575	670	1.4	7.287	A
4 - A4232	1582	956	1649	0.959	1539	13.7	28.164	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1007	1440	1085	0.928	999	10.4	39.649	E
2 - Rover Way	1354	1037	1455	0.931	1347	11.6	32.769	D
3 - Rover Way	673	1682	1156	0.582	672	1.4	7.570	A
4 - A4232	1582	965	1644	0.962	1568	17.1	41.044	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	822	1230	1186	0.693	854	2.5	12.588	B
2 - Rover Way	1106	887	1530	0.723	1140	2.9	10.896	B
3 - Rover Way	549	1427	1290	0.426	552	0.8	4.976	A
4 - A4232	1291	805	1725	0.748	1346	3.3	11.647	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	689	998	1299	0.530	694	1.2	6.409	A
2 - Rover Way	926	720	1615	0.574	932	1.5	5.798	A
3 - Rover Way	460	1164	1428	0.322	461	0.5	3.794	A
4 - A4232	1081	665	1796	0.602	1088	1.7	5.532	A

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	188.31	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	944	100.000
2 - Rover Way		✓	1309	100.000
3 - Rover Way		✓	634	100.000
4 - A4232		✓	1806	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	275	261	408
	2 - Rover Way	535	0	71	703
	3 - Rover Way	245	147	0	242
	4 - A4232	342	1062	402	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	4	18	15
	2 - Rover Way	7	0	10	18
	3 - Rover Way	7	2	0	4
	4 - A4232	16	11	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.97	65.66	18.2	F
2 - Rover Way	1.01	74.59	30.3	F
3 - Rover Way	0.63	9.12	1.7	A
4 - A4232	1.22	397.75	194.4	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	711	1201	1200	0.592	704	1.6	8.065	A
2 - Rover Way	985	798	1575	0.626	978	1.9	6.739	A
3 - Rover Way	477	1229	1394	0.342	475	0.5	4.101	A
4 - A4232	1360	694	1782	0.763	1346	3.4	8.794	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	849	1418	1095	0.775	841	3.6	15.428	C
2 - Rover Way	1177	949	1499	0.785	1169	3.9	12.014	B
3 - Rover Way	570	1469	1268	0.450	569	0.8	5.387	A
4 - A4232	1623	830	1713	0.948	1587	12.5	25.894	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1039	1478	1066	0.975	998	14.0	43.736	E
2 - Rover Way	1441	1069	1439	1.001	1375	20.4	42.914	E
3 - Rover Way	698	1732	1129	0.618	695	1.7	8.614	A
4 - A4232	1988	992	1631	1.219	1625	103.3	136.855	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1039	1478	1066	0.975	1023	18.2	65.660	F
2 - Rover Way	1441	1086	1430	1.008	1401	30.3	74.593	F
3 - Rover Way	698	1767	1111	0.628	698	1.7	9.118	A
4 - A4232	1988	1005	1624	1.224	1624	194.4	332.215	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	849	1494	1059	0.802	901	5.1	31.339	D
2 - Rover Way	1177	1012	1467	0.802	1278	5.0	29.832	D
3 - Rover Way	570	1598	1200	0.475	573	1.0	6.046	A
4 - A4232	1623	877	1689	0.961	1679	180.4	397.750	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	711	1542	1035	0.687	721	2.6	13.259	B
2 - Rover Way	985	904	1522	0.647	997	2.1	7.919	A
3 - Rover Way	477	1255	1380	0.346	479	0.6	4.191	A
4 - A4232	1360	704	1777	0.765	1766	78.9	265.995	F

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	38.16	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	930	100.000
2 - Rover Way		✓	1248	100.000
3 - Rover Way		✓	620	100.000
4 - A4232		✓	1444	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	295	256	379
	2 - Rover Way	476	0	68	704
	3 - Rover Way	281	138	0	202
	4 - A4232	258	861	325	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	1	2	15
	2 - Rover Way	6	0	2	12
	3 - Rover Way	3	2	0	0
	4 - A4232	22	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.95	45.95	12.3	E
2 - Rover Way	0.95	38.47	13.8	E
3 - Rover Way	0.60	7.92	1.5	A
4 - A4232	0.97	45.86	19.4	E

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	700	991	1302	0.538	695	1.2	6.287	A
2 - Rover Way	940	718	1616	0.582	934	1.5	5.708	A
3 - Rover Way	467	1166	1427	0.327	465	0.5	3.799	A
4 - A4232	1087	670	1794	0.606	1081	1.6	5.397	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	836	1185	1208	0.692	832	2.3	10.098	B
2 - Rover Way	1122	858	1545	0.726	1117	2.8	9.061	A
3 - Rover Way	558	1395	1307	0.427	557	0.8	4.876	A
4 - A4232	1298	802	1727	0.752	1292	3.1	8.803	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1024	1418	1095	0.935	995	9.7	31.684	D
2 - Rover Way	1374	1026	1461	0.941	1341	11.2	27.298	D
3 - Rover Way	683	1673	1160	0.589	680	1.4	7.584	A
4 - A4232	1590	970	1642	0.968	1542	15.0	30.247	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1024	1443	1083	0.945	1014	12.3	45.953	E
2 - Rover Way	1374	1045	1451	0.947	1364	13.8	38.468	E
3 - Rover Way	683	1703	1145	0.597	683	1.5	7.918	A
4 - A4232	1590	981	1636	0.972	1572	19.4	45.859	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	836	1243	1180	0.709	875	2.7	14.044	B
2 - Rover Way	1122	903	1522	0.737	1165	3.2	12.186	B
3 - Rover Way	558	1458	1274	0.438	560	0.8	5.152	A
4 - A4232	1298	822	1717	0.756	1362	3.5	12.791	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	700	1003	1296	0.540	706	1.3	6.576	A
2 - Rover Way	940	728	1611	0.583	946	1.6	5.966	A
3 - Rover Way	467	1183	1418	0.329	468	0.5	3.858	A
4 - A4232	1087	677	1790	0.607	1094	1.7	5.637	A

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	188.26	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	925	100.000
2 - Rover Way		✓	1321	100.000
3 - Rover Way		✓	638	100.000
4 - A4232		✓	1807	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	266	261	398
	2 - Rover Way	535	0	71	715
	3 - Rover Way	245	147	0	246
	4 - A4232	342	1061	404	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	4	18	15
	2 - Rover Way	7	0	10	18
	3 - Rover Way	7	2	0	4
	4 - A4232	16	11	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.96	55.05	14.7	F
2 - Rover Way	1.01	80.48	33.4	F
3 - Rover Way	0.63	9.21	1.8	A
4 - A4232	1.22	398.52	194.3	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	696	1202	1200	0.580	690	1.5	7.858	A
2 - Rover Way	994	793	1578	0.630	987	1.9	6.806	A
3 - Rover Way	481	1231	1393	0.345	478	0.5	4.115	A
4 - A4232	1360	694	1782	0.763	1347	3.4	8.801	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	832	1418	1095	0.759	824	3.3	14.583	B
2 - Rover Way	1187	942	1503	0.790	1179	4.0	12.263	B
3 - Rover Way	574	1471	1267	0.453	573	0.9	5.423	A
4 - A4232	1624	830	1713	0.948	1587	12.6	25.950	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1019	1479	1066	0.956	984	11.9	38.995	E
2 - Rover Way	1454	1065	1441	1.009	1382	22.0	45.156	E
3 - Rover Way	703	1732	1129	0.622	699	1.7	8.704	A
4 - A4232	1989	990	1632	1.219	1626	103.3	136.739	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1019	1479	1066	0.956	1007	14.7	55.054	F
2 - Rover Way	1454	1081	1433	1.015	1408	33.4	80.485	F
3 - Rover Way	703	1767	1111	0.632	702	1.8	9.212	A
4 - A4232	1989	1002	1625	1.224	1625	194.3	331.884	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	832	1492	1059	0.785	872	4.5	25.219	D
2 - Rover Way	1187	997	1475	0.805	1300	5.2	33.546	D
3 - Rover Way	574	1606	1196	0.480	577	1.0	6.130	A
4 - A4232	1624	881	1687	0.963	1677	181.0	398.522	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	696	1542	1035	0.673	705	2.4	12.554	B
2 - Rover Way	994	897	1525	0.652	1006	2.2	8.018	A
3 - Rover Way	481	1256	1380	0.348	482	0.6	4.211	A
4 - A4232	1360	704	1776	0.766	1766	79.5	267.199	F

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	41.31	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Lamby Way		✓	930	100.000
2 - Rover Way		✓	1250	100.000
3 - Rover Way		✓	615	100.000
4 - A4232		✓	1457	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	295	256	379
	2 - Rover Way	476	0	68	706
	3 - Rover Way	281	138	0	196
	4 - A4232	248	873	336	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lamby Way	2 - Rover Way	3 - Rover Way	4 - A4232
From	1 - Lamby Way	0	1	2	15
	2 - Rover Way	6	0	2	12
	3 - Rover Way	3	2	0	0
	4 - A4232	22	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Lamby Way	0.95	50.19	13.5	F
2 - Rover Way	0.95	40.31	14.5	E
3 - Rover Way	0.59	7.82	1.4	A
4 - A4232	0.98	50.64	21.9	F

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	700	1008	1294	0.541	695	1.2	6.373	A
2 - Rover Way	941	726	1612	0.584	935	1.5	5.752	A
3 - Rover Way	463	1167	1426	0.325	461	0.5	3.786	A
4 - A4232	1097	670	1794	0.612	1090	1.7	5.462	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	836	1205	1198	0.698	832	2.4	10.359	B
2 - Rover Way	1123	868	1540	0.730	1118	2.8	9.311	A
3 - Rover Way	553	1396	1306	0.423	552	0.7	4.850	A
4 - A4232	1310	802	1727	0.758	1304	3.3	9.022	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1024	1439	1085	0.944	992	10.4	33.558	D
2 - Rover Way	1376	1035	1456	0.945	1341	11.6	28.139	D
3 - Rover Way	677	1672	1161	0.583	674	1.4	7.487	A
4 - A4232	1604	970	1642	0.977	1552	16.4	32.209	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	1024	1465	1073	0.955	1011	13.5	50.187	F
2 - Rover Way	1376	1056	1445	0.952	1364	14.5	40.305	E
3 - Rover Way	677	1702	1145	0.591	677	1.4	7.815	A
4 - A4232	1604	980	1637	0.980	1583	21.9	50.639	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	836	1272	1166	0.717	879	2.8	15.226	C
2 - Rover Way	1123	919	1514	0.742	1168	3.3	12.712	B
3 - Rover Way	553	1463	1271	0.435	555	0.8	5.139	A
4 - A4232	1310	823	1716	0.763	1383	3.6	14.045	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lamby Way	700	1021	1288	0.544	706	1.3	6.682	A
2 - Rover Way	941	737	1606	0.586	948	1.6	6.025	A
3 - Rover Way	463	1184	1418	0.327	464	0.5	3.847	A
4 - A4232	1097	677	1790	0.613	1105	1.7	5.717	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 23_A48_Pentwyn_Interchange_Priority.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\ARCADY
Report generation date: 11/05/2020 12:57:49

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 with Committed Development, Weekday AM Peak
»2023 with Committed Development, Weekday PM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak
»2028 with Committed Development, Weekday AM Peak
»2028 with Committed Development, Weekday PM Peak
»2028 with Committed and Proposed Development, Weekday AM Peak
»2028 with Committed and Proposed Development, Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
1 - Eastern Ave	0.8	5.06	0.46	A	0.9	4.55	0.47	A
2 - Cardiff East Park&Ride	0.0	2.18	0.02	A	0.1	2.41	0.13	A
3 - Eastern Ave	0.3	2.19	0.24	A	0.4	2.61	0.29	A
4 - Bryn Celyn Road	0.8	3.51	0.44	A	0.5	3.20	0.34	A
5 - Pentwyn Road	0.8	3.68	0.45	A	0.6	3.10	0.37	A
	2023 with Committed Development							
1 - Eastern Ave	1.3	7.28	0.56	A	1.2	5.89	0.54	A
2 - Cardiff East Park&Ride	0.0	2.53	0.02	A	0.2	2.78	0.15	A
3 - Eastern Ave	0.6	2.67	0.38	A	0.9	3.50	0.47	A
4 - Bryn Celyn Road	1.1	4.47	0.52	A	0.7	3.93	0.41	A
5 - Pentwyn Road	1.9	6.00	0.65	A	1.2	4.37	0.54	A
	2023 with Committed Development and Proposed Development (Phase 1)							
1 - Eastern Ave	1.3	7.48	0.57	A	1.4	6.56	0.59	A
2 - Cardiff East Park&Ride	0.0	2.54	0.02	A	0.2	2.85	0.15	A
3 - Eastern Ave	0.6	2.69	0.38	A	0.9	3.63	0.48	A
4 - Bryn Celyn Road	1.3	4.88	0.56	A	0.7	4.00	0.42	A
5 - Pentwyn Road	2.0	6.36	0.67	A	1.2	4.41	0.54	A

	2028 with Committed Development							
1 - Eastern Ave	1.4	7.61	0.58	A	1.2	6.08	0.55	A
2 - Cardiff East Park&Ride	0.0	2.56	0.02	A	0.2	2.82	0.15	A
3 - Eastern Ave	0.6	2.71	0.38	A	0.9	3.57	0.48	A
4 - Bryn Celyn Road	1.1	4.60	0.53	A	0.7	4.01	0.42	A
5 - Pentwyn Road	2.0	6.25	0.67	A	1.2	4.47	0.55	A
	2028 with Committed and Proposed Development							
1 - Eastern Ave	1.3	7.37	0.56	A	1.6	7.04	0.61	A
2 - Cardiff East Park&Ride	0.0	2.54	0.02	A	0.2	2.92	0.16	A
3 - Eastern Ave	0.6	2.69	0.38	A	0.9	3.71	0.48	A
4 - Bryn Celyn Road	1.3	5.00	0.57	A	0.7	3.97	0.41	A
5 - Pentwyn Road	2.1	6.61	0.68	A	1.2	4.44	0.55	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	09/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15

D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Eastern Ave	
2	Cardiff East Park&Ride	
3	Eastern Ave	
4	Bryn Celyn Road	
5	Pentwyn Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Eastern Ave	5.03	6.21	4.9	69.3	123.4	27.0	
2 - Cardiff East Park&Ride	7.48	8.72	6.5	44.0	123.4	44.0	
3 - Eastern Ave	5.12	8.03	51.8	65.0	123.4	10.0	
4 - Bryn Celyn Road	3.52	7.74	104.8	27.1	123.4	38.0	
5 - Pentwyn Road	3.59	8.78	40.5	28.7	123.4	37.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Eastern Ave	0.470	1803
2 - Cardiff East Park&Ride	0.545	2445
3 - Eastern Ave	0.584	2536
4 - Bryn Celyn Road	0.508	2166
5 - Pentwyn Road	0.511	2182

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	551	100.000
2 - Cardiff East Park&Ride		✓	30	100.000
3 - Eastern Ave		✓	481	100.000
4 - Bryn Celyn Road		✓	724	100.000
5 - Pentwyn Road		✓	723	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Eastern Ave	**2 - Cardiff East Park&Ride**	**3 - Eastern Ave**	**4 - Bryn Celyn Road**	**5 - Pentwyn Road**
From	**1 - Eastern Ave**	0	162	0	162	227
	2 - Cardiff East Park&Ride	7	0	17	0	6
	3 - Eastern Ave	60	42	0	105	274
	4 - Bryn Celyn Road	334	17	265	0	108
	5 - Pentwyn Road	109	5	451	159	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.46	5.06	0.8	A
2 - Cardiff East Park&Ride	0.02	2.18	0.0	A
3 - Eastern Ave	0.24	2.19	0.3	A
4 - Bryn Celyn Road	0.44	3.51	0.8	A
5 - Pentwyn Road	0.45	3.68	0.8	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	414	704	1472	0.282	413	0.4	3.394	A
2 - Cardiff East Park&Ride	23	948	1928	0.012	23	0.0	1.888	A
3 - Eastern Ave	362	421	2290	0.158	361	0.2	1.866	A
4 - Bryn Celyn Road	545	463	1931	0.282	543	0.4	2.592	A
5 - Pentwyn Road	544	544	1904	0.286	543	0.4	2.642	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	495	843	1407	0.352	494	0.5	3.941	A
2 - Cardiff East Park&Ride	27	1134	1827	0.015	27	0.0	2.000	A
3 - Eastern Ave	432	504	2242	0.193	432	0.2	1.989	A
4 - Bryn Celyn Road	651	554	1885	0.345	650	0.5	2.913	A
5 - Pentwyn Road	650	651	1850	0.351	649	0.5	2.997	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	606	1031	1318	0.460	605	0.8	5.037	A
2 - Cardiff East Park&Ride	33	1388	1688	0.020	33	0.0	2.174	A
3 - Eastern Ave	530	617	2176	0.243	529	0.3	2.186	A
4 - Bryn Celyn Road	797	678	1822	0.437	796	0.8	3.505	A

5 - Pentwyn Road	796	797	1775	0.448	795	0.8	3.670	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	606	1033	1318	0.460	606	0.8	5.057	A
2 - Cardiff East Park&Ride	33	1390	1687	0.020	33	0.0	2.176	A
3 - Eastern Ave	530	618	2175	0.243	530	0.3	2.187	A
4 - Bryn Celyn Road	797	679	1822	0.438	797	0.8	3.512	A
5 - Pentwyn Road	796	798	1775	0.449	796	0.8	3.677	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	495	845	1406	0.352	496	0.5	3.960	A
2 - Cardiff East Park&Ride	27	1137	1825	0.015	27	0.0	2.002	A
3 - Eastern Ave	432	506	2241	0.193	433	0.2	1.991	A
4 - Bryn Celyn Road	651	555	1885	0.345	652	0.5	2.921	A
5 - Pentwyn Road	650	653	1849	0.352	651	0.5	3.007	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	414	707	1471	0.282	415	0.4	3.410	A
2 - Cardiff East Park&Ride	23	952	1926	0.012	23	0.0	1.890	A
3 - Eastern Ave	362	423	2289	0.158	362	0.2	1.870	A
4 - Bryn Celyn Road	545	465	1931	0.282	546	0.4	2.599	A
5 - Pentwyn Road	544	546	1903	0.286	545	0.4	2.650	A

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	629	100.000
2 - Cardiff East Park&Ride		✓	203	100.000
3 - Eastern Ave		✓	524	100.000
4 - Bryn Celyn Road		✓	533	100.000
5 - Pentwyn Road		✓	608	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	6	0	355	268
	2 - Cardiff East Park&Ride	147	0	35	8	13
	3 - Eastern Ave	40	18	0	137	329
	4 - Bryn Celyn Road	245	2	177	0	109
	5 - Pentwyn Road	190	7	303	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.47	4.55	0.9	A
2 - Cardiff East Park&Ride	0.13	2.41	0.1	A
3 - Eastern Ave	0.29	2.61	0.4	A
4 - Bryn Celyn Road	0.34	3.20	0.5	A
5 - Pentwyn Road	0.37	3.10	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	474	462	1586	0.299	472	0.4	3.228	A
2 - Cardiff East Park&Ride	153	909	1949	0.078	152	0.1	2.003	A
3 - Eastern Ave	394	675	2142	0.184	394	0.2	2.058	A
4 - Bryn Celyn Road	402	612	1856	0.216	400	0.3	2.473	A
5 - Pentwyn Road	458	472	1941	0.236	456	0.3	2.422	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	566	553	1543	0.367	565	0.6	3.678	A
2 - Cardiff East Park&Ride	182	1088	1852	0.099	182	0.1	2.156	A
3 - Eastern Ave	471	808	2064	0.228	471	0.3	2.258	A
4 - Bryn Celyn Road	480	732	1795	0.267	479	0.4	2.736	A
5 - Pentwyn Road	546	565	1894	0.288	546	0.4	2.671	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	693	677	1485	0.467	692	0.9	4.531	A
2 - Cardiff East Park&Ride	224	1332	1719	0.130	223	0.1	2.406	A
3 - Eastern Ave	577	989	1959	0.295	576	0.4	2.604	A
4 - Bryn Celyn Road	587	896	1711	0.343	587	0.5	3.199	A
5 - Pentwyn Road	669	692	1829	0.366	668	0.6	3.100	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	693	677	1485	0.467	693	0.9	4.546	A
2 - Cardiff East Park&Ride	224	1334	1718	0.130	224	0.1	2.408	A
3 - Eastern Ave	577	991	1958	0.295	577	0.4	2.606	A
4 - Bryn Celyn Road	587	897	1711	0.343	587	0.5	3.203	A
5 - Pentwyn Road	669	693	1829	0.366	669	0.6	3.104	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	566	554	1543	0.367	567	0.6	3.695	A

2 - Cardiff East Park&Ride	182	1091	1850	0.099	183	0.1	2.160	A
3 - Eastern Ave	471	810	2063	0.228	471	0.3	2.262	A
4 - Bryn Celyn Road	480	734	1794	0.267	480	0.4	2.740	A
5 - Pentwyn Road	546	566	1893	0.289	547	0.4	2.677	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	474	464	1585	0.299	474	0.4	3.241	A
2 - Cardiff East Park&Ride	153	913	1947	0.078	153	0.1	2.006	A
3 - Eastern Ave	394	678	2140	0.184	395	0.2	2.064	A
4 - Bryn Celyn Road	402	614	1855	0.217	402	0.3	2.478	A
5 - Pentwyn Road	458	474	1940	0.236	458	0.3	2.430	A

2023 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	579	100.000
2 - Cardiff East Park&Ride		✓	31	100.000
3 - Eastern Ave		✓	736	100.000
4 - Bryn Celyn Road		✓	800	100.000
5 - Pentwyn Road		✓	1028	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	166	0	179	234
	2 - Cardiff East Park&Ride	8	0	18	0	6
	3 - Eastern Ave	62	43	0	123	508
	4 - Bryn Celyn Road	350	18	321	0	111
	5 - Pentwyn Road	112	5	748	164	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.56	7.28	1.3	A
2 - Cardiff East Park&Ride	0.02	2.53	0.0	A
3 - Eastern Ave	0.38	2.67	0.6	A
4 - Bryn Celyn Road	0.52	4.47	1.1	A
5 - Pentwyn Road	0.65	6.00	1.9	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	436	974	1346	0.324	434	0.5	3.941	A
2 - Cardiff East Park&Ride	23	1234	1773	0.013	23	0.0	2.057	A
3 - Eastern Ave	554	442	2278	0.243	552	0.3	2.086	A
4 - Bryn Celyn Road	602	646	1839	0.327	600	0.5	2.903	A
5 - Pentwyn Road	774	601	1875	0.413	771	0.7	3.252	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	520	1165	1256	0.414	519	0.7	4.884	A
2 - Cardiff East Park&Ride	28	1476	1640	0.017	28	0.0	2.232	A
3 - Eastern Ave	661	529	2227	0.297	661	0.4	2.298	A
4 - Bryn Celyn Road	719	772	1774	0.405	718	0.7	3.407	A
5 - Pentwyn Road	924	719	1815	0.509	923	1.0	4.030	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	637	1425	1133	0.562	635	1.3	7.192	A
2 - Cardiff East Park&Ride	34	1806	1461	0.024	34	0.0	2.522	A
3 - Eastern Ave	810	647	2158	0.375	809	0.6	2.667	A
4 - Bryn Celyn Road	880	945	1686	0.522	879	1.1	4.447	A
5 - Pentwyn Road	1132	880	1733	0.653	1129	1.8	5.928	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	637	1429	1132	0.563	637	1.3	7.279	A
2 - Cardiff East Park&Ride	34	1811	1458	0.024	34	0.0	2.527	A
3 - Eastern Ave	810	649	2157	0.375	810	0.6	2.671	A
4 - Bryn Celyn Road	880	947	1686	0.522	880	1.1	4.469	A
5 - Pentwyn Road	1132	881	1732	0.654	1132	1.9	5.997	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	520	1171	1253	0.415	523	0.7	4.944	A
2 - Cardiff East Park&Ride	28	1484	1637	0.017	28	0.0	2.237	A
3 - Eastern Ave	661	532	2225	0.297	662	0.4	2.305	A
4 - Bryn Celyn Road	719	775	1773	0.405	720	0.7	3.426	A
5 - Pentwyn Road	924	721	1814	0.510	928	1.0	4.076	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	436	979	1343	0.324	437	0.5	3.976	A
2 - Cardiff East Park&Ride	23	1240	1769	0.013	23	0.0	2.063	A
3 - Eastern Ave	554	445	2276	0.243	554	0.3	2.092	A
4 - Bryn Celyn Road	602	648	1837	0.328	603	0.5	2.917	A
5 - Pentwyn Road	774	603	1874	0.413	775	0.7	3.280	A

2023 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	653	100.000
2 - Cardiff East Park&Ride		✓	208	100.000
3 - Eastern Ave		✓	827	100.000
4 - Bryn Celyn Road		✓	582	100.000
5 - Pentwyn Road		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	6	0	371	275
	2 - Cardiff East Park&Ride	151	0	36	8	13
	3 - Eastern Ave	41	18	0	175	592
	4 - Bryn Celyn Road	263	2	204	0	112
	5 - Pentwyn Road	195	7	573	111	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.54	5.89	1.2	A
2 - Cardiff East Park&Ride	0.15	2.78	0.2	A
3 - Eastern Ave	0.47	3.50	0.9	A
4 - Bryn Celyn Road	0.41	3.93	0.7	A
5 - Pentwyn Road	0.54	4.37	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	491	687	1480	0.332	489	0.5	3.625	A
2 - Cardiff East Park&Ride	157	1151	1818	0.086	157	0.1	2.167	A
3 - Eastern Ave	622	698	2129	0.292	621	0.4	2.385	A
4 - Bryn Celyn Road	438	819	1751	0.250	437	0.3	2.737	A
5 - Pentwyn Road	667	510	1922	0.347	665	0.5	2.859	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	587	823	1417	0.414	586	0.7	4.328	A
2 - Cardiff East Park&Ride	187	1378	1694	0.111	187	0.1	2.388	A
3 - Eastern Ave	743	835	2049	0.363	742	0.6	2.754	A
4 - Bryn Celyn Road	523	980	1669	0.313	522	0.5	3.138	A
5 - Pentwyn Road	796	611	1870	0.426	796	0.7	3.349	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	718	1007	1330	0.540	717	1.2	5.850	A
2 - Cardiff East Park&Ride	229	1686	1526	0.150	229	0.2	2.775	A
3 - Eastern Ave	910	1022	1940	0.469	909	0.9	3.487	A
4 - Bryn Celyn Road	640	1200	1557	0.411	639	0.7	3.917	A
5 - Pentwyn Road	975	748	1800	0.542	974	1.2	4.346	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	718	1009	1329	0.540	718	1.2	5.892	A
2 - Cardiff East Park&Ride	229	1690	1524	0.151	229	0.2	2.779	A
3 - Eastern Ave	910	1024	1938	0.469	910	0.9	3.499	A
4 - Bryn Celyn Road	640	1202	1556	0.411	640	0.7	3.929	A
5 - Pentwyn Road	975	749	1800	0.542	975	1.2	4.365	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	587	825	1415	0.414	588	0.7	4.362	A
2 - Cardiff East Park&Ride	187	1383	1691	0.111	188	0.1	2.393	A
3 - Eastern Ave	743	838	2047	0.363	744	0.6	2.768	A
4 - Bryn Celyn Road	523	983	1667	0.314	524	0.5	3.152	A
5 - Pentwyn Road	796	612	1870	0.426	798	0.7	3.367	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	491	690	1479	0.332	492	0.5	3.654	A
2 - Cardiff East Park&Ride	157	1157	1814	0.086	157	0.1	2.171	A
3 - Eastern Ave	622	701	2127	0.293	623	0.4	2.394	A
4 - Bryn Celyn Road	438	823	1749	0.250	438	0.3	2.749	A
5 - Pentwyn Road	667	512	1921	0.347	668	0.5	2.877	A

2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	591	100.000
2 - Cardiff East Park&Ride		✓	31	100.000
3 - Eastern Ave		✓	736	100.000
4 - Bryn Celyn Road		✓	861	100.000
5 - Pentwyn Road		✓	1028	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	166	0	191	234
	2 - Cardiff East Park&Ride	8	0	18	0	6
	3 - Eastern Ave	62	43	0	123	508
	4 - Bryn Celyn Road	411	18	321	0	111
	5 - Pentwyn Road	112	5	748	164	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.57	7.48	1.3	A
2 - Cardiff East Park&Ride	0.02	2.54	0.0	A
3 - Eastern Ave	0.38	2.69	0.6	A
4 - Bryn Celyn Road	0.56	4.88	1.3	A
5 - Pentwyn Road	0.67	6.36	2.0	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	445	974	1346	0.331	443	0.5	3.979	A
2 - Cardiff East Park&Ride	23	1243	1768	0.013	23	0.0	2.063	A
3 - Eastern Ave	554	451	2273	0.244	552	0.3	2.092	A
4 - Bryn Celyn Road	648	646	1839	0.353	646	0.5	3.013	A
5 - Pentwyn Road	774	647	1852	0.418	771	0.7	3.323	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	531	1165	1256	0.423	530	0.7	4.957	A
2 - Cardiff East Park&Ride	28	1487	1635	0.017	28	0.0	2.240	A
3 - Eastern Ave	661	540	2221	0.298	661	0.4	2.308	A
4 - Bryn Celyn Road	774	772	1774	0.436	773	0.8	3.592	A
5 - Pentwyn Road	924	774	1787	0.517	923	1.1	4.160	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	651	1425	1134	0.574	648	1.3	7.381	A
2 - Cardiff East Park&Ride	34	1818	1454	0.024	34	0.0	2.535	A
3 - Eastern Ave	810	660	2151	0.377	809	0.6	2.682	A
4 - Bryn Celyn Road	948	945	1687	0.562	946	1.3	4.849	A
5 - Pentwyn Road	1132	947	1698	0.667	1129	2.0	6.276	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	651	1429	1132	0.575	651	1.3	7.480	A
2 - Cardiff East Park&Ride	34	1824	1451	0.024	34	0.0	2.540	A
3 - Eastern Ave	810	663	2149	0.377	810	0.6	2.687	A
4 - Bryn Celyn Road	948	947	1686	0.562	948	1.3	4.878	A
5 - Pentwyn Road	1132	949	1698	0.667	1132	2.0	6.363	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	531	1171	1253	0.424	534	0.7	5.022	A
2 - Cardiff East Park&Ride	28	1495	1630	0.017	28	0.0	2.246	A
3 - Eastern Ave	661	543	2219	0.298	662	0.4	2.312	A
4 - Bryn Celyn Road	774	775	1773	0.437	776	0.8	3.619	A
5 - Pentwyn Road	924	777	1786	0.518	928	1.1	4.216	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	445	979	1343	0.331	446	0.5	4.016	A
2 - Cardiff East Park&Ride	23	1250	1764	0.013	23	0.0	2.069	A
3 - Eastern Ave	554	454	2271	0.244	554	0.3	2.097	A
4 - Bryn Celyn Road	648	648	1837	0.353	649	0.5	3.033	A
5 - Pentwyn Road	774	650	1850	0.418	776	0.7	3.355	A

2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	709	100.000
2 - Cardiff East Park&Ride		✓	208	100.000
3 - Eastern Ave		✓	827	100.000
4 - Bryn Celyn Road		✓	596	100.000
5 - Pentwyn Road		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	6	0	428	275
	2 - Cardiff East Park&Ride	151	0	36	8	13
	3 - Eastern Ave	41	18	0	175	592
	4 - Bryn Celyn Road	277	2	204	0	112
	5 - Pentwyn Road	195	7	573	111	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.59	6.56	1.4	A
2 - Cardiff East Park&Ride	0.15	2.85	0.2	A
3 - Eastern Ave	0.48	3.63	0.9	A
4 - Bryn Celyn Road	0.42	4.00	0.7	A
5 - Pentwyn Road	0.54	4.41	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	534	687	1480	0.361	531	0.6	3.789	A
2 - Cardiff East Park&Ride	157	1194	1795	0.087	157	0.1	2.197	A
3 - Eastern Ave	622	740	2104	0.296	621	0.4	2.425	A
4 - Bryn Celyn Road	449	819	1751	0.256	447	0.3	2.760	A
5 - Pentwyn Road	667	521	1916	0.348	665	0.5	2.872	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	637	823	1417	0.450	636	0.8	4.608	A
2 - Cardiff East Park&Ride	187	1429	1667	0.112	187	0.1	2.433	A
3 - Eastern Ave	743	886	2019	0.368	742	0.6	2.818	A
4 - Bryn Celyn Road	536	980	1669	0.321	535	0.5	3.173	A
5 - Pentwyn Road	796	624	1864	0.427	796	0.7	3.366	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	781	1007	1330	0.587	778	1.4	6.497	A
2 - Cardiff East Park&Ride	229	1748	1493	0.154	229	0.2	2.849	A
3 - Eastern Ave	910	1083	1904	0.478	909	0.9	3.613	A
4 - Bryn Celyn Road	656	1200	1558	0.421	655	0.7	3.986	A
5 - Pentwyn Road	975	763	1792	0.544	974	1.2	4.387	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	781	1009	1329	0.587	781	1.4	6.560	A
2 - Cardiff East Park&Ride	229	1752	1490	0.154	229	0.2	2.854	A
3 - Eastern Ave	910	1086	1902	0.478	910	0.9	3.627	A
4 - Bryn Celyn Road	656	1202	1556	0.422	656	0.7	3.998	A
5 - Pentwyn Road	975	764	1792	0.544	975	1.2	4.409	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	637	825	1415	0.450	640	0.8	4.654	A
2 - Cardiff East Park&Ride	187	1434	1663	0.113	188	0.1	2.439	A
3 - Eastern Ave	743	890	2017	0.368	744	0.6	2.831	A
4 - Bryn Celyn Road	536	983	1667	0.321	537	0.5	3.188	A
5 - Pentwyn Road	796	625	1863	0.428	798	0.8	3.388	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	534	690	1479	0.361	535	0.6	3.817	A
2 - Cardiff East Park&Ride	157	1200	1791	0.088	157	0.1	2.204	A
3 - Eastern Ave	622	744	2102	0.296	623	0.4	2.434	A
4 - Bryn Celyn Road	449	823	1749	0.257	449	0.3	2.772	A
5 - Pentwyn Road	667	523	1915	0.348	668	0.5	2.889	A

2028 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	590	100.000
2 - Cardiff East Park&Ride		✓	32	100.000
3 - Eastern Ave		✓	745	100.000
4 - Bryn Celyn Road		✓	814	100.000
5 - Pentwyn Road		✓	1043	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	170	0	182	238
	2 - Cardiff East Park&Ride	8	0	18	0	6
	3 - Eastern Ave	63	44	0	125	513
	4 - Bryn Celyn Road	356	18	326	0	114
	5 - Pentwyn Road	114	5	757	167	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.58	7.61	1.4	A
2 - Cardiff East Park&Ride	0.02	2.56	0.0	A
3 - Eastern Ave	0.38	2.71	0.6	A
4 - Bryn Celyn Road	0.53	4.60	1.1	A
5 - Pentwyn Road	0.67	6.25	2.0	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	444	988	1339	0.332	442	0.5	4.004	A
2 - Cardiff East Park&Ride	24	1252	1763	0.014	24	0.0	2.070	A
3 - Eastern Ave	561	451	2273	0.247	560	0.3	2.100	A
4 - Bryn Celyn Road	613	655	1834	0.334	611	0.5	2.937	A
5 - Pentwyn Road	785	612	1870	0.420	782	0.7	3.301	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	530	1182	1248	0.425	529	0.7	5.004	A
2 - Cardiff East Park&Ride	29	1499	1628	0.018	29	0.0	2.250	A
3 - Eastern Ave	670	539	2221	0.302	669	0.4	2.320	A
4 - Bryn Celyn Road	732	783	1769	0.414	731	0.7	3.463	A
5 - Pentwyn Road	937	732	1808	0.518	936	1.1	4.118	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	649	1446	1124	0.578	647	1.3	7.509	A
2 - Cardiff East Park&Ride	35	1833	1446	0.024	35	0.0	2.550	A
3 - Eastern Ave	820	659	2151	0.381	820	0.6	2.702	A
4 - Bryn Celyn Road	896	959	1680	0.533	894	1.1	4.573	A
5 - Pentwyn Road	1148	896	1725	0.666	1144	2.0	6.163	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	649	1449	1122	0.579	649	1.4	7.612	A
2 - Cardiff East Park&Ride	35	1838	1443	0.024	35	0.0	2.555	A
3 - Eastern Ave	820	662	2150	0.382	820	0.6	2.707	A
4 - Bryn Celyn Road	896	960	1679	0.534	896	1.1	4.598	A
5 - Pentwyn Road	1148	897	1724	0.666	1148	2.0	6.245	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	530	1187	1245	0.426	533	0.7	5.071	A
2 - Cardiff East Park&Ride	29	1507	1624	0.018	29	0.0	2.256	A
3 - Eastern Ave	670	543	2219	0.302	671	0.4	2.325	A
4 - Bryn Celyn Road	732	786	1768	0.414	733	0.7	3.488	A
5 - Pentwyn Road	937	734	1807	0.519	941	1.1	4.170	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	444	993	1337	0.332	445	0.5	4.041	A
2 - Cardiff East Park&Ride	24	1259	1759	0.014	24	0.0	2.076	A
3 - Eastern Ave	561	453	2271	0.247	561	0.3	2.107	A
4 - Bryn Celyn Road	613	657	1833	0.334	614	0.5	2.956	A
5 - Pentwyn Road	785	614	1869	0.420	786	0.7	3.330	A

2028 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	664	100.000
2 - Cardiff East Park&Ride		✓	212	100.000
3 - Eastern Ave		✓	836	100.000
4 - Bryn Celyn Road		✓	591	100.000
5 - Pentwyn Road		✓	897	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	6	0	378	280
	2 - Cardiff East Park&Ride	154	0	37	8	14
	3 - Eastern Ave	42	19	0	177	598
	4 - Bryn Celyn Road	268	2	208	0	114
	5 - Pentwyn Road	198	7	578	113	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.55	6.08	1.2	A
2 - Cardiff East Park&Ride	0.15	2.82	0.2	A
3 - Eastern Ave	0.48	3.57	0.9	A
4 - Bryn Celyn Road	0.42	4.01	0.7	A
5 - Pentwyn Road	0.55	4.47	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	500	696	1476	0.339	498	0.5	3.672	A
2 - Cardiff East Park&Ride	160	1168	1809	0.088	159	0.1	2.183	A
3 - Eastern Ave	629	710	2122	0.297	628	0.4	2.408	A
4 - Bryn Celyn Road	445	830	1745	0.255	444	0.3	2.765	A
5 - Pentwyn Road	675	519	1917	0.352	673	0.5	2.889	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	597	833	1412	0.423	596	0.7	4.408	A
2 - Cardiff East Park&Ride	191	1398	1683	0.113	191	0.1	2.411	A
3 - Eastern Ave	752	850	2040	0.368	751	0.6	2.791	A
4 - Bryn Celyn Road	532	994	1662	0.320	531	0.5	3.181	A
5 - Pentwyn Road	806	621	1865	0.432	806	0.8	3.394	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	731	1019	1324	0.552	729	1.2	6.030	A
2 - Cardiff East Park&Ride	234	1710	1513	0.154	233	0.2	2.813	A
3 - Eastern Ave	921	1040	1929	0.477	919	0.9	3.560	A
4 - Bryn Celyn Road	651	1216	1549	0.420	650	0.7	4.000	A
5 - Pentwyn Road	988	760	1794	0.551	986	1.2	4.445	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	731	1021	1323	0.552	731	1.2	6.077	A
2 - Cardiff East Park&Ride	234	1714	1511	0.155	234	0.2	2.817	A
3 - Eastern Ave	921	1042	1928	0.478	921	0.9	3.573	A
4 - Bryn Celyn Road	651	1218	1548	0.421	651	0.7	4.013	A
5 - Pentwyn Road	988	761	1793	0.551	988	1.2	4.467	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	597	835	1411	0.423	599	0.7	4.447	A
2 - Cardiff East Park&Ride	191	1403	1680	0.113	191	0.1	2.416	A
3 - Eastern Ave	752	853	2038	0.369	753	0.6	2.803	A
4 - Bryn Celyn Road	532	997	1661	0.320	533	0.5	3.196	A
5 - Pentwyn Road	806	623	1864	0.433	808	0.8	3.413	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	500	699	1475	0.339	501	0.5	3.699	A
2 - Cardiff East Park&Ride	160	1174	1805	0.088	160	0.1	2.187	A
3 - Eastern Ave	629	714	2119	0.297	630	0.4	2.417	A
4 - Bryn Celyn Road	445	834	1743	0.255	446	0.3	2.775	A
5 - Pentwyn Road	675	521	1916	0.352	676	0.5	2.904	A

2028 with Committed and Proposed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	576	100.000
2 - Cardiff East Park&Ride		✓	32	100.000
3 - Eastern Ave		✓	745	100.000
4 - Bryn Celyn Road		✓	871	100.000
5 - Pentwyn Road		✓	1043	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	170	0	168	238
	2 - Cardiff East Park&Ride	8	0	18	0	6
	3 - Eastern Ave	63	44	0	125	513
	4 - Bryn Celyn Road	413	18	326	0	114
	5 - Pentwyn Road	114	5	757	167	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.56	7.37	1.3	A
2 - Cardiff East Park&Ride	0.02	2.54	0.0	A
3 - Eastern Ave	0.38	2.69	0.6	A
4 - Bryn Celyn Road	0.57	5.00	1.3	A
5 - Pentwyn Road	0.68	6.61	2.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	433	988	1339	0.324	431	0.5	3.958	A
2 - Cardiff East Park&Ride	24	1242	1768	0.014	24	0.0	2.063	A
3 - Eastern Ave	561	440	2279	0.246	560	0.3	2.093	A
4 - Bryn Celyn Road	656	655	1834	0.358	653	0.6	3.044	A
5 - Pentwyn Road	785	654	1848	0.425	782	0.7	3.369	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	517	1182	1248	0.415	517	0.7	4.917	A
2 - Cardiff East Park&Ride	29	1486	1635	0.017	29	0.0	2.240	A
3 - Eastern Ave	670	527	2229	0.301	669	0.4	2.308	A
4 - Bryn Celyn Road	783	783	1769	0.443	782	0.8	3.645	A
5 - Pentwyn Road	937	783	1782	0.526	936	1.1	4.246	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	634	1445	1124	0.564	631	1.3	7.275	A
2 - Cardiff East Park&Ride	35	1817	1455	0.024	35	0.0	2.534	A
3 - Eastern Ave	820	644	2160	0.380	820	0.6	2.684	A
4 - Bryn Celyn Road	959	959	1680	0.571	957	1.3	4.966	A
5 - Pentwyn Road	1148	958	1693	0.678	1144	2.1	6.514	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	634	1449	1122	0.565	634	1.3	7.368	A
2 - Cardiff East Park&Ride	35	1823	1452	0.024	35	0.0	2.540	A
3 - Eastern Ave	820	646	2159	0.380	820	0.6	2.688	A
4 - Bryn Celyn Road	959	960	1679	0.571	959	1.3	4.999	A
5 - Pentwyn Road	1148	960	1692	0.678	1148	2.1	6.614	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	517	1188	1245	0.416	520	0.7	4.980	A
2 - Cardiff East Park&Ride	29	1494	1631	0.018	29	0.0	2.246	A
3 - Eastern Ave	670	530	2227	0.301	670	0.4	2.313	A
4 - Bryn Celyn Road	783	786	1768	0.443	785	0.8	3.673	A
5 - Pentwyn Road	937	786	1781	0.526	941	1.1	4.305	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	433	993	1337	0.324	434	0.5	3.993	A
2 - Cardiff East Park&Ride	24	1249	1764	0.014	24	0.0	2.069	A
3 - Eastern Ave	561	443	2278	0.246	561	0.3	2.097	A
4 - Bryn Celyn Road	656	657	1833	0.358	657	0.6	3.065	A
5 - Pentwyn Road	785	657	1847	0.425	786	0.7	3.402	A

2028 with Committed and Proposed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Geometry	3 - Eastern Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Bryn Celyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	5 - Pentwyn Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Eastern Ave		✓	738	100.000
2 - Cardiff East Park&Ride		✓	212	100.000
3 - Eastern Ave		✓	827	100.000
4 - Bryn Celyn Road		✓	582	100.000
5 - Pentwyn Road		✓	897	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	6	0	451	280
	2 - Cardiff East Park&Ride	154	0	37	8	14
	3 - Eastern Ave	42	19	0	168	598
	4 - Bryn Celyn Road	258	2	208	0	114
	5 - Pentwyn Road	198	7	578	113	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Eastern Ave	2 - Cardiff East Park&Ride	3 - Eastern Ave	4 - Bryn Celyn Road	5 - Pentwyn Road
From	1 - Eastern Ave	0	0	0	0	0
	2 - Cardiff East Park&Ride	0	0	0	0	0
	3 - Eastern Ave	0	0	0	0	0
	4 - Bryn Celyn Road	0	0	0	0	0
	5 - Pentwyn Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Eastern Ave	0.61	7.04	1.6	A
2 - Cardiff East Park&Ride	0.16	2.92	0.2	A
3 - Eastern Ave	0.48	3.71	0.9	A
4 - Bryn Celyn Road	0.41	3.97	0.7	A
5 - Pentwyn Road	0.55	4.44	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	555	696	1476	0.376	553	0.6	3.889	A
2 - Cardiff East Park&Ride	160	1223	1778	0.090	159	0.1	2.223	A
3 - Eastern Ave	623	765	2089	0.298	621	0.4	2.450	A
4 - Bryn Celyn Road	438	830	1745	0.251	437	0.3	2.750	A
5 - Pentwyn Road	675	512	1921	0.352	673	0.5	2.880	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	663	833	1412	0.470	662	0.9	4.794	A
2 - Cardiff East Park&Ride	191	1464	1647	0.116	191	0.1	2.471	A
3 - Eastern Ave	744	916	2002	0.372	743	0.6	2.858	A
4 - Bryn Celyn Road	523	993	1662	0.315	523	0.5	3.157	A
5 - Pentwyn Road	806	613	1869	0.431	806	0.8	3.380	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	812	1019	1324	0.613	809	1.6	6.958	A
2 - Cardiff East Park&Ride	234	1791	1469	0.159	233	0.2	2.912	A
3 - Eastern Ave	911	1120	1882	0.484	909	0.9	3.695	A
4 - Bryn Celyn Road	641	1216	1549	0.414	640	0.7	3.954	A
5 - Pentwyn Road	988	750	1799	0.549	986	1.2	4.416	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	812	1021	1323	0.614	812	1.6	7.038	A
2 - Cardiff East Park&Ride	234	1795	1467	0.159	234	0.2	2.918	A
3 - Eastern Ave	911	1123	1880	0.484	911	0.9	3.711	A
4 - Bryn Celyn Road	641	1218	1548	0.414	641	0.7	3.967	A
5 - Pentwyn Road	988	751	1799	0.549	988	1.2	4.438	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	663	835	1411	0.470	666	0.9	4.850	A
2 - Cardiff East Park&Ride	191	1470	1644	0.116	191	0.1	2.477	A
3 - Eastern Ave	744	920	1999	0.372	745	0.6	2.873	A
4 - Bryn Celyn Road	523	997	1660	0.315	524	0.5	3.170	A
5 - Pentwyn Road	806	614	1869	0.432	808	0.8	3.399	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Eastern Ave	555	699	1475	0.377	557	0.6	3.925	A
2 - Cardiff East Park&Ride	160	1229	1775	0.090	160	0.1	2.228	A
3 - Eastern Ave	623	769	2087	0.298	623	0.4	2.460	A
4 - Bryn Celyn Road	438	834	1743	0.251	439	0.3	2.760	A
5 - Pentwyn Road	675	514	1920	0.352	676	0.5	2.898	A

Appendix R

PICADY Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 2_Cypress Dr_Fortran_Rd.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:25:25

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-C	0.1	7.17	0.05	A	0.3	14.38	0.23	B
Stream B-A	0.2	8.38	0.20	A	3.4	28.03	0.78	D
Stream C-AB	0.2	7.15	0.19	A	0.1	5.72	0.09	A
	2023 + Com Dev							
Stream B-C	0.1	7.45	0.06	A	0.6	25.22	0.38	D
Stream B-A	0.3	9.17	0.25	A	5.6	43.99	0.87	E
Stream C-AB	0.3	7.50	0.21	A	0.1	5.90	0.10	A
	2023 + Com Dev + Dev							
Stream B-C	0.1	9.22	0.10	A	5.2	215.36	1.01	F
Stream B-A	0.5	12.96	0.32	B	15.8	118.75	1.00	F
Stream C-AB	0.3	9.69	0.26	A	0.1	6.11	0.10	A
	2028 + Com Dev							
Stream B-C	0.1	7.45	0.06	A	0.6	25.22	0.38	D
Stream B-A	0.3	9.17	0.25	A	5.6	43.99	0.87	E
Stream C-AB	0.3	7.50	0.21	A	0.1	5.90	0.10	A
	2028 + Com Dev + Dev							
Stream B-C	0.2	12.90	0.14	B	5.0	228.03	1.02	F
Stream B-A	0.6	21.66	0.38	C	14.7	134.28	1.01	F

Stream C-AB	0.5	14.22	0.32	B	0.1	6.13	0.10	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	20/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Cypress Drive		Major
B	Fortran Road		Minor
C	Cypress Drive		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Cypress Drive	13.89	✓	4.17	✓	3.54	160.6	✓	8.36

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Fortran Road	One lane plus flare	10.00	8.58	5.93	4.99	4.93	✓	3.00	43	46

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	648	0.071	0.179	0.113	0.256
1	B-C	611	0.062	0.155	-	-
1	C-B	764	0.194	0.194	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	678	100.000
B - Fortran Road		✓	119	100.000
C - Cypress Drive		✓	273	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
From	A - Cypress Drive	0	589	90
	B - Fortran Road	95	0	24
	C - Cypress Drive	168	105	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	7.17	0.1	A
B-A	0.20	8.38	0.2	A
C-AB	0.19	7.15	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	555	0.033	18	0.0	6.699	A
B-A	72	570	0.125	71	0.1	7.202	A
C-AB	79	665	0.119	78	0.1	6.133	A
C-A	127			127			
A-B	443			443			
A-C	67			67			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	544	0.040	22	0.0	6.891	A
B-A	85	555	0.154	85	0.2	7.661	A
C-AB	94	646	0.146	94	0.2	6.526	A
C-A	151			151			
A-B	529			529			
A-C	81			81			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	528	0.050	26	0.1	7.174	A
B-A	105	534	0.196	104	0.2	8.374	A
C-AB	115	619	0.187	115	0.2	7.143	A
C-A	185			185			
A-B	648			648			
A-C	99			99			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	528	0.050	26	0.1	7.175	A
B-A	105	534	0.196	105	0.2	8.383	A
C-AB	115	619	0.187	115	0.2	7.149	A
C-A	185			185			
A-B	648			648			
A-C	99			99			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	544	0.040	22	0.0	6.897	A
B-A	85	555	0.154	86	0.2	7.676	A
C-AB	94	646	0.146	95	0.2	6.534	A
C-A	151			151			
A-B	529			529			
A-C	81			81			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	555	0.033	18	0.0	6.705	A
B-A	72	570	0.125	72	0.1	7.226	A
C-AB	79	665	0.119	79	0.1	6.146	A
C-A	127			127			
A-B	443			443			

A-C	67			67			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		13.25	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	339	100.000
B - Fortran Road		✓	479	100.000
C - Cypress Drive		✓	148	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	120	219
	B - Fortran Road	409	0	70
	C - Cypress Drive	91	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
	A - Cypress Drive	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.23	14.38	0.3	B
B-A	0.78	28.03	3.4	D
C-AB	0.09	5.72	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	52	483	0.109	52	0.1	8.346	A
B-A	308	602	0.511	304	1.0	11.912	B
C-AB	42	715	0.059	42	0.1	5.353	A
C-A	69			69			
A-B	90			90			
A-C	165			165			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	438	0.143	62	0.2	9.584	A
B-A	368	591	0.622	365	1.6	15.773	C
C-AB	51	705	0.072	51	0.1	5.501	A
C-A	82			82			
A-B	107			107			
A-C	197			197			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	336	0.228	76	0.3	13.831	B
B-A	450	576	0.781	444	3.2	25.977	D
C-AB	62	692	0.090	62	0.1	5.717	A
C-A	101			101			
A-B	132			132			
A-C	242			242			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	327	0.234	77	0.3	14.384	B
B-A	450	576	0.781	450	3.4	28.029	D
C-AB	62	692	0.090	62	0.1	5.717	A
C-A	101			101			
A-B	132			132			
A-C	242			242			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	431	0.145	63	0.2	9.806	A
B-A	368	591	0.622	374	1.7	17.032	C
C-AB	51	705	0.072	51	0.1	5.503	A
C-A	82			82			
A-B	107			107			
A-C	197			197			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	52	479	0.109	53	0.1	8.438	A
B-A	308	602	0.511	310	1.1	12.446	B
C-AB	42	715	0.059	43	0.1	5.356	A
C-A	69			69			
A-B	90			90			
A-C	165			165			

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)

D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	730	100.000
B - Fortran Road		✓	146	100.000
C - Cypress Drive		✓	315	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	626	104
	B - Fortran Road	118	0	28
	C - Cypress Drive	199	116	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.06	7.45	0.1	A
B-A	0.25	9.17	0.3	A
C-AB	0.21	7.50	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-C	21	546	0.039	21	0.0	6.860	A
B-A	89	563	0.158	88	0.2	7.571	A
C-AB	87	657	0.133	87	0.2	6.302	A
C-A	150			150			
A-B	471			471			
A-C	79			79			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	533	0.048	25	0.0	7.095	A
B-A	106	546	0.194	106	0.2	8.175	A
C-AB	104	637	0.164	104	0.2	6.759	A
C-A	179			179			
A-B	563			563			
A-C	94			94			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	514	0.061	31	0.1	7.448	A
B-A	130	522	0.248	129	0.3	9.150	A
C-AB	128	608	0.210	127	0.3	7.489	A
C-A	219			219			
A-B	689			689			
A-C	115			115			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	514	0.061	31	0.1	7.450	A
B-A	130	522	0.248	130	0.3	9.168	A
C-AB	128	608	0.210	128	0.3	7.495	A
C-A	219			219			
A-B	689			689			
A-C	115			115			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	533	0.048	26	0.1	7.102	A
B-A	106	546	0.194	106	0.2	8.198	A
C-AB	104	637	0.164	104	0.2	6.771	A
C-A	179			179			
A-B	563			563			
A-C	94			94			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	545	0.039	21	0.0	6.868	A
B-A	89	563	0.158	89	0.2	7.605	A
C-AB	87	657	0.133	87	0.2	6.318	A
C-A	150			150			
A-B	471			471			
A-C	79			79			

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		19.79	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	408	100.000
B - Fortran Road		✓	520	100.000
C - Cypress Drive		✓	172	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
From	A - Cypress Drive	0	147	261
	B - Fortran Road	442	0	78
	C - Cypress Drive	111	61	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
	A - Cypress Drive	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.38	25.22	0.6	D
B-A	0.87	43.99	5.6	E
C-AB	0.10	5.90	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	463	0.127	58	0.1	8.873	A
B-A	333	592	0.562	328	1.2	13.382	B
C-AB	46	704	0.065	45	0.1	5.460	A
C-A	83			83			
A-B	110			110			
A-C	197			197			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	402	0.175	70	0.2	10.831	B
B-A	397	579	0.686	394	2.1	19.065	C
C-AB	55	693	0.079	55	0.1	5.639	A
C-A	100			100			
A-B	132			132			
A-C	235			235			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	251	0.342	85	0.5	21.456	C
B-A	486	561	0.866	474	5.0	37.161	E
C-AB	67	677	0.099	67	0.1	5.901	A
C-A	122			122			
A-B	161			161			
A-C	288			288			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	228	0.377	86	0.6	25.221	D
B-A	486	561	0.866	484	5.6	43.991	E
C-AB	67	677	0.099	67	0.1	5.901	A
C-A	122			122			
A-B	161			161			
A-C	288			288			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	385	0.182	72	0.2	11.549	B
B-A	397	579	0.685	410	2.3	22.642	C
C-AB	55	693	0.079	55	0.1	5.641	A
C-A	100			100			
A-B	132			132			
A-C	235			235			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	458	0.128	59	0.1	9.032	A
B-A	333	592	0.562	336	1.3	14.302	B
C-AB	46	704	0.065	46	0.1	5.465	A
C-A	83			83			
A-B	110			110			
A-C	197			197			

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)

D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	1229	100.000
B - Fortran Road		✓	157	100.000
C - Cypress Drive		✓	393	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	626	603
	B - Fortran Road	118	0	39
	C - Cypress Drive	275	118	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.10	9.22	0.1	A
B-A	0.32	12.96	0.5	B
C-AB	0.26	9.69	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	496	0.060	29	0.1	7.715	A
B-A	89	481	0.184	88	0.2	9.135	A
C-AB	89	584	0.152	88	0.2	7.242	A
C-A	207			207			
A-B	471			471			
A-C	454			454			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	35	470	0.075	35	0.1	8.276	A
B-A	106	450	0.235	106	0.3	10.440	B
C-AB	106	549	0.193	106	0.2	8.108	A
C-A	247			247			
A-B	563			563			
A-C	542			542			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	434	0.099	43	0.1	9.209	A
B-A	130	407	0.318	129	0.5	12.903	B
C-AB	130	501	0.259	129	0.3	9.664	A
C-A	303			303			
A-B	689			689			
A-C	664			664			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	434	0.100	43	0.1	9.221	A
B-A	130	407	0.318	130	0.5	12.962	B
C-AB	130	501	0.259	130	0.3	9.690	A
C-A	303			303			
A-B	689			689			
A-C	664			664			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	35	470	0.075	35	0.1	8.290	A
B-A	106	450	0.235	106	0.3	10.500	B
C-AB	106	549	0.193	106	0.2	8.131	A
C-A	247			247			
A-B	563			563			
A-C	542			542			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	495	0.060	30	0.1	7.732	A
B-A	89	481	0.184	89	0.2	9.194	A
C-AB	89	584	0.152	89	0.2	7.269	A
C-A	207			207			
A-B	471			471			

A-C	454			454			

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		42.88	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	503	100.000
B - Fortran Road		✓	522	100.000
C - Cypress Drive		✓	610	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	147	357
	B - Fortran Road	442	0	80
	C - Cypress Drive	549	61	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
	A - Cypress Drive	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.01	215.36	5.2	F
B-A	1.00	118.75	15.8	F
C-AB	0.10	6.11	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	436	0.139	60	0.2	9.566	A
B-A	333	541	0.615	326	1.5	16.371	C
C-AB	46	691	0.066	45	0.1	5.578	A
C-A	414			414			
A-B	110			110			
A-C	269			269			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	339	0.213	72	0.3	13.436	B
B-A	397	518	0.766	391	2.9	27.232	D
C-AB	55	676	0.081	55	0.1	5.791	A
C-A	494			494			
A-B	132			132			
A-C	321			321			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	89	88	1.012	72	4.4	165.569	F
B-A	486	486	1.000	454	11.0	74.004	F
C-AB	67	656	0.102	67	0.1	6.105	A
C-A	605			605			
A-B	161			161			
A-C	393			393			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	89	97	0.914	85	5.2	215.358	F
B-A	486	484	1.004	467	15.8	118.746	F
C-AB	67	656	0.102	67	0.1	6.105	A
C-A	605			605			
A-B	161			161			
A-C	393			393			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	242	0.299	91	0.4	26.715	D
B-A	397	516	0.770	444	3.9	63.312	F
C-AB	55	676	0.081	55	0.1	5.795	A
C-A	494			494			
A-B	132			132			
A-C	321			321			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	423	0.143	62	0.2	9.988	A
B-A	333	541	0.615	342	1.7	18.810	C
C-AB	46	691	0.066	46	0.1	5.586	A
C-A	414			414			
A-B	110			110			
A-C	269			269			

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)

D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	730	100.000
B - Fortran Road		✓	146	100.000
C - Cypress Drive		✓	315	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	626	104
	B - Fortran Road	118	0	28
	C - Cypress Drive	199	116	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.06	7.45	0.1	A
B-A	0.25	9.17	0.3	A
C-AB	0.21	7.50	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-C	21	546	0.039	21	0.0	6.860	A
B-A	89	563	0.158	88	0.2	7.571	A
C-AB	87	657	0.133	87	0.2	6.302	A
C-A	150			150			
A-B	471			471			
A-C	79			79			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	533	0.048	25	0.0	7.095	A
B-A	106	546	0.194	106	0.2	8.175	A
C-AB	104	637	0.164	104	0.2	6.759	A
C-A	179			179			
A-B	563			563			
A-C	94			94			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	514	0.061	31	0.1	7.448	A
B-A	130	522	0.248	129	0.3	9.150	A
C-AB	128	608	0.210	127	0.3	7.489	A
C-A	219			219			
A-B	689			689			
A-C	115			115			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	514	0.061	31	0.1	7.450	A
B-A	130	522	0.248	130	0.3	9.168	A
C-AB	128	608	0.210	128	0.3	7.495	A
C-A	219			219			
A-B	689			689			
A-C	115			115			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	533	0.048	26	0.1	7.102	A
B-A	106	546	0.194	106	0.2	8.198	A
C-AB	104	637	0.164	104	0.2	6.771	A
C-A	179			179			
A-B	563			563			
A-C	94			94			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	545	0.039	21	0.0	6.868	A
B-A	89	563	0.158	89	0.2	7.605	A
C-AB	87	657	0.133	87	0.2	6.318	A
C-A	150			150			
A-B	471			471			
A-C	79			79			

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		19.79	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	408	100.000
B - Fortran Road		✓	520	100.000
C - Cypress Drive		✓	172	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
	A - Cypress Drive	0	147	261
	B - Fortran Road	442	0	78
	C - Cypress Drive	111	61	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
	A - Cypress Drive	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.38	25.22	0.6	D
B-A	0.87	43.99	5.6	E
C-AB	0.10	5.90	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	463	0.127	58	0.1	8.873	A
B-A	333	592	0.562	328	1.2	13.382	B
C-AB	46	704	0.065	45	0.1	5.460	A
C-A	83			83			
A-B	110			110			
A-C	197			197			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	402	0.175	70	0.2	10.831	B
B-A	397	579	0.686	394	2.1	19.065	C
C-AB	55	693	0.079	55	0.1	5.639	A
C-A	100			100			
A-B	132			132			
A-C	235			235			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	251	0.342	85	0.5	21.456	C
B-A	486	561	0.866	474	5.0	37.161	E
C-AB	67	677	0.099	67	0.1	5.901	A
C-A	122			122			
A-B	161			161			
A-C	288			288			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	228	0.377	86	0.6	25.221	D
B-A	486	561	0.866	484	5.6	43.991	E
C-AB	67	677	0.099	67	0.1	5.901	A
C-A	122			122			
A-B	161			161			
A-C	288			288			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	385	0.182	72	0.2	11.549	B
B-A	397	579	0.685	410	2.3	22.642	C
C-AB	55	693	0.079	55	0.1	5.641	A
C-A	100			100			
A-B	132			132			
A-C	235			235			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	458	0.128	59	0.1	9.032	A
B-A	333	592	0.562	336	1.3	14.302	B
C-AB	46	704	0.065	46	0.1	5.465	A
C-A	83			83			
A-B	110			110			
A-C	197			197			

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)

D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	1839	100.000
B - Fortran Road		✓	135	100.000
C - Cypress Drive		✓	432	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	518	1321
	B - Fortran Road	92	0	42
	C - Cypress Drive	326	107	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.14	12.90	0.2	B
B-A	0.38	21.66	0.6	C
C-AB	0.32	14.22	0.5	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	428	0.074	32	0.1	9.058	A
B-A	69	382	0.182	69	0.2	11.458	B
C-AB	80	495	0.162	80	0.2	8.650	A
C-A	245			245			
A-B	390			390			
A-C	994			994			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	387	0.098	38	0.1	10.320	B
B-A	83	334	0.248	83	0.3	14.295	B
C-AB	96	443	0.217	96	0.3	10.361	B
C-A	293			293			
A-B	466			466			
A-C	1187			1187			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	326	0.143	46	0.2	12.848	B
B-A	102	268	0.380	101	0.6	21.395	C
C-AB	117	370	0.317	117	0.5	14.146	B
C-A	358			358			
A-B	571			571			
A-C	1454			1454			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	326	0.143	47	0.2	12.896	B
B-A	102	268	0.380	102	0.6	21.660	C
C-AB	117	370	0.317	117	0.5	14.223	B
C-A	358			358			
A-B	571			571			
A-C	1454			1454			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	386	0.098	38	0.1	10.363	B
B-A	83	334	0.249	84	0.3	14.470	B
C-AB	96	443	0.217	97	0.3	10.424	B
C-A	293			293			
A-B	466			466			
A-C	1187			1187			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	428	0.074	32	0.1	9.097	A
B-A	69	382	0.182	70	0.2	11.560	B
C-AB	80	495	0.162	81	0.2	8.697	A
C-A	245			245			
A-B	390			390			

A-C	994			994			

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		29.84	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	538	100.000
B - Fortran Road		✓	436	100.000
C - Cypress Drive		✓	1228	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	**B - Fortran Road**	**C - Cypress Drive**
From	**A - Cypress Drive**	0	113	425
	B - Fortran Road	363	0	73
	C - Cypress Drive	1171	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Cypress Drive	B - Fortran Road	C - Cypress Drive
	A - Cypress Drive	0	0	0
	B - Fortran Road	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.02	228.03	5.0	F
B-A	1.01	134.28	14.7	F
C-AB	0.10	6.13	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	449	0.122	54	0.1	9.120	A
B-A	273	479	0.570	268	1.3	16.681	C
C-AB	42	686	0.062	42	0.1	5.593	A
C-A	882			882			
A-B	85			85			
A-C	320			320			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	358	0.183	65	0.2	12.266	B
B-A	326	445	0.733	321	2.5	28.011	D
C-AB	51	670	0.076	51	0.1	5.810	A
C-A	1053			1053			
A-B	101			101			
A-C	382			382			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	79	1.018	64	4.2	176.250	F
B-A	399	398	1.004	369	10.1	82.647	F
C-AB	62	649	0.096	62	0.1	6.131	A
C-A	1289			1289			
A-B	124			124			
A-C	468			468			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	87	0.919	77	5.0	228.030	F
B-A	399	396	1.009	381	14.7	134.280	F
C-AB	62	649	0.096	62	0.1	6.131	A
C-A	1289			1289			
A-B	124			124			
A-C	468			468			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	262	0.250	84	0.3	22.370	C
B-A	326	443	0.736	372	3.2	65.093	F
C-AB	51	670	0.076	51	0.1	5.814	A
C-A	1053			1053			
A-B	101			101			
A-C	382			382			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	439	0.125	56	0.1	9.420	A
B-A	273	479	0.570	280	1.4	18.722	C
C-AB	42	686	0.062	43	0.1	5.598	A
C-A	882			882			
A-B	85			85			
A-C	320			320			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 3_Cypress Drive_Pascal Close.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:29:52

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-C	0.0	7.85	0.01	A	0.0	7.86	0.04	A
Stream B-A	0.1	8.53	0.09	A	0.6	10.94	0.37	B
Stream C-AB	0.0	6.73	0.03	A	0.0	5.54	0.04	A
	2023 + Com Dev							
Stream B-C	0.0	8.01	0.01	A	0.0	8.14	0.04	A
Stream B-A	0.1	8.91	0.09	A	0.6	11.70	0.39	B
Stream C-AB	0.0	6.87	0.03	A	0.0	5.68	0.04	A
	2023 + Com Dev + Dev							
Stream B-C	0.0	10.02	0.01	B	0.0	8.98	0.04	A
Stream B-A	0.1	12.46	0.13	B	0.8	15.69	0.46	C
Stream C-AB	0.0	8.71	0.03	A	0.0	5.87	0.04	A
	2028 + Com Dev							
Stream B-C	0.0	8.01	0.01	A	0.0	8.14	0.04	A
Stream B-A	0.1	8.91	0.09	A	0.6	11.70	0.39	B
Stream C-AB	0.0	6.87	0.03	A	0.0	5.68	0.04	A
	2028 + Com Dev + Dev							
Stream B-C	0.0	15.12	0.01	C	0.0	9.44	0.04	A
Stream B-A	0.3	24.24	0.20	C	0.9	20.60	0.49	C

Stream C-AB	0.1	13.34	0.05	B	0.0	5.94	0.04	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	16/11/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Urszula.Suplicka
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		0.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Cypress Dr		Major
B	Pascal Cl		Minor
C	Cypress Dr		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Cypress Dr	13.37	✓	4.07	✓	3.40	180.0	✓	15.47

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Pascal Cl	One lane plus flare	10.00	6.45	4.44	4.15	4.15	✓	1.00	46	64

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
3	B-A	669	0.076	0.192	0.121	0.274
3	B-C	615	0.064	0.162	-	-
3	C-B	767	0.202	0.202	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	978	100.000
B - Pascal Cl		✓	41	100.000
C - Cypress Dr		✓	264	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	303	675
	B - Pascal Cl	38	0	3
	C - Cypress Dr	251	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	0	0
	B - Pascal Cl	0	0	0
	C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	7.85	0.0	A
B-A	0.09	8.53	0.1	A
C-AB	0.03	6.73	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	511	0.004	2	0.0	7.076	A
B-A	29	529	0.055	29	0.1	7.189	A
C-AB	10	618	0.016	10	0.0	5.916	A
C-A	189			189			
A-B	228			228			
A-C	508			508			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	490	0.006	3	0.0	7.379	A
B-A	34	502	0.069	34	0.1	7.700	A
C-AB	12	589	0.020	12	0.0	6.231	A
C-A	226			226			
A-B	272			272			
A-C	607			607			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	462	0.007	3	0.0	7.846	A
B-A	42	464	0.091	42	0.1	8.528	A
C-AB	14	549	0.026	14	0.0	6.726	A
C-A	276			276			
A-B	333			333			
A-C	744			744			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	462	0.007	3	0.0	7.846	A
B-A	42	464	0.091	42	0.1	8.531	A
C-AB	14	549	0.026	14	0.0	6.726	A
C-A	276			276			
A-B	333			333			
A-C	744			744			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	490	0.006	3	0.0	7.382	A
B-A	34	502	0.069	35	0.1	7.705	A
C-AB	12	589	0.020	12	0.0	6.232	A
C-A	226			226			
A-B	272			272			
A-C	607			607			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	511	0.004	2	0.0	7.080	A
B-A	29	529	0.055	29	0.1	7.197	A
C-AB	10	618	0.016	10	0.0	5.919	A

C-A	189			189			
A-B	228			228			
A-C	508			508			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		1.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	420	100.000
B - Pascal Cl		✓	191	100.000
C - Cypress Dr		✓	500	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	**B - Pascal Cl**	**C - Cypress Dr**
From	**A - Cypress Dr**	0	98	323
	B - Pascal Cl	175	0	16
	C - Cypress Dr	478	22	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
A - Cypress Dr	0	0	0
B - Pascal Cl	0	0	0
C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	7.86	0.0	A
B-A	0.37	10.94	0.6	B
C-AB	0.04	5.54	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	533	0.023	12	0.0	6.916	A
B-A	132	568	0.232	131	0.3	8.203	A
C-AB	17	703	0.024	16	0.0	5.244	A
C-A	360			360			
A-B	73			73			
A-C	243			243			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	511	0.029	15	0.0	7.250	A
B-A	158	549	0.287	157	0.4	9.179	A
C-AB	20	691	0.029	20	0.0	5.366	A
C-A	429			429			
A-B	88			88			
A-C	290			290			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	476	0.037	18	0.0	7.852	A
B-A	193	522	0.370	192	0.6	10.893	B
C-AB	24	673	0.036	24	0.0	5.545	A
C-A	526			526			

A-B	107			107			
A-C	355			355			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	476	0.037	18	0.0	7.860	A
B-A	193	522	0.370	193	0.6	10.938	B
C-AB	24	673	0.036	24	0.0	5.545	A
C-A	526			526			
A-B	107			107			
A-C	355			355			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	510	0.029	15	0.0	7.259	A
B-A	158	549	0.287	158	0.4	9.230	A
C-AB	20	691	0.029	20	0.0	5.369	A
C-A	429			429			
A-B	88			88			
A-C	290			290			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	532	0.023	12	0.0	6.928	A
B-A	132	568	0.232	132	0.3	8.263	A
C-AB	17	703	0.024	17	0.0	5.247	A
C-A	360			360			
A-B	73			73			
A-C	243			243			

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		0.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	1030	100.000
B - Pascal Cl		✓	41	100.000
C - Cypress Dr		✓	318	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	303	727
	B - Pascal Cl	38	0	3
	C - Cypress Dr	305	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	0	0
	B - Pascal Cl	0	0	0
	C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	8.01	0.0	A
B-A	0.09	8.91	0.1	A
C-AB	0.03	6.87	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	505	0.004	2	0.0	7.166	A
B-A	29	517	0.056	29	0.1	7.373	A
C-AB	10	610	0.016	10	0.0	5.994	A
C-A	230			230			
A-B	228			228			
A-C	548			548			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	483	0.006	3	0.0	7.497	A
B-A	34	487	0.071	34	0.1	7.953	A
C-AB	12	580	0.020	12	0.0	6.335	A
C-A	274			274			
A-B	272			272			
A-C	654			654			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	453	0.007	3	0.0	8.012	A
B-A	42	446	0.095	42	0.1	8.911	A
C-AB	14	538	0.027	14	0.0	6.875	A
C-A	336			336			
A-B	333			333			
A-C	801			801			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	453	0.007	3	0.0	8.013	A
B-A	42	446	0.095	42	0.1	8.915	A
C-AB	14	538	0.027	14	0.0	6.875	A
C-A	336			336			
A-B	333			333			
A-C	801			801			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	483	0.006	3	0.0	7.501	A
B-A	34	487	0.071	35	0.1	7.960	A
C-AB	12	580	0.020	12	0.0	6.335	A
C-A	274			274			
A-B	272			272			
A-C	654			654			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	504	0.004	2	0.0	7.170	A
B-A	29	517	0.056	29	0.1	7.384	A
C-AB	10	610	0.016	10	0.0	5.994	A

C-A	230			230			
A-B	228			228			
A-C	548			548			

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		1.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	489	100.000
B - Pascal Cl		✓	191	100.000
C - Cypress Dr		✓	552	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	**B - Pascal Cl**	**C - Cypress Dr**
From	**A - Cypress Dr**	0	98	392
	B - Pascal Cl	175	0	16
	C - Cypress Dr	530	22	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
A - Cypress Dr	0	0	0
B - Pascal Cl	0	0	0
C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	8.14	0.0	A
B-A	0.39	11.70	0.6	B
C-AB	0.04	5.68	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	523	0.023	12	0.0	7.041	A
B-A	132	554	0.238	131	0.3	8.486	A
C-AB	17	692	0.024	16	0.0	5.326	A
C-A	399			399			
A-B	73			73			
A-C	295			295			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	499	0.029	15	0.0	7.424	A
B-A	158	531	0.296	157	0.4	9.611	A
C-AB	20	678	0.029	20	0.0	5.468	A
C-A	476			476			
A-B	88			88			
A-C	352			352			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	460	0.039	18	0.0	8.134	A
B-A	193	500	0.385	192	0.6	11.646	B
C-AB	24	658	0.037	24	0.0	5.679	A
C-A	583			583			

A-B	107			107			
A-C	431			431			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	460	0.039	18	0.0	8.144	A
B-A	193	500	0.385	193	0.6	11.703	B
C-AB	24	658	0.037	24	0.0	5.679	A
C-A	583			583			
A-B	107			107			
A-C	431			431			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	499	0.029	15	0.0	7.435	A
B-A	158	531	0.296	158	0.4	9.671	A
C-AB	20	678	0.029	20	0.0	5.469	A
C-A	476			476			
A-B	88			88			
A-C	352			352			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	523	0.023	12	0.0	7.051	A
B-A	132	554	0.238	132	0.3	8.555	A
C-AB	17	692	0.024	17	0.0	5.328	A
C-A	399			399			
A-B	73			73			
A-C	295			295			

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		0.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	1526	100.000
B - Pascal Cl		✓	41	100.000
C - Cypress Dr		✓	394	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	303	1224
	B - Pascal Cl	38	0	3
	C - Cypress Dr	381	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	0	0
	B - Pascal Cl	0	0	0
	C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	10.02	0.0	B
B-A	0.13	12.46	0.1	B
C-AB	0.03	8.71	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	444	0.005	2	0.0	8.154	A
B-A	29	438	0.066	29	0.1	8.786	A
C-AB	10	535	0.018	10	0.0	6.855	A
C-A	287			287			
A-B	228			228			
A-C	921			921			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	410	0.007	3	0.0	8.839	A
B-A	34	393	0.088	34	0.1	10.031	B
C-AB	12	490	0.024	12	0.0	7.528	A
C-A	342			342			
A-B	272			272			
A-C	1100			1100			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	363	0.009	3	0.0	10.015	B
B-A	42	331	0.127	42	0.1	12.445	B
C-AB	14	428	0.033	14	0.0	8.708	A
C-A	419			419			
A-B	333			333			
A-C	1347			1347			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	363	0.009	3	0.0	10.017	B
B-A	42	331	0.127	42	0.1	12.463	B
C-AB	14	428	0.033	14	0.0	8.710	A
C-A	419			419			
A-B	333			333			
A-C	1347			1347			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	410	0.007	3	0.0	8.841	A
B-A	34	393	0.088	35	0.1	10.046	B
C-AB	12	490	0.024	12	0.0	7.532	A
C-A	342			342			
A-B	272			272			
A-C	1100			1100			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	444	0.005	2	0.0	8.156	A
B-A	29	438	0.066	29	0.1	8.803	A
C-AB	10	535	0.018	10	0.0	6.858	A

C-A	287			287			
A-B	228			228			
A-C	921			921			

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		1.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	584	100.000
B - Pascal Cl		✓	191	100.000
C - Cypress Dr		✓	990	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	**B - Pascal Cl**	**C - Cypress Dr**
From	**A - Cypress Dr**	0	98	487
	B - Pascal Cl	175	0	16
	C - Cypress Dr	968	22	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
A - Cypress Dr	0	0	0
B - Pascal Cl	0	0	0
C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	8.98	0.0	A
B-A	0.46	15.69	0.8	C
C-AB	0.04	5.87	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	507	0.024	12	0.0	7.274	A
B-A	132	500	0.264	130	0.4	9.702	A
C-AB	17	678	0.024	16	0.0	5.442	A
C-A	729			729			
A-B	73			73			
A-C	366			366			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	476	0.031	15	0.0	7.807	A
B-A	158	467	0.337	157	0.5	11.571	B
C-AB	20	661	0.030	20	0.0	5.615	A
C-A	871			871			
A-B	88			88			
A-C	437			437			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	420	0.043	18	0.0	8.956	A
B-A	193	422	0.457	192	0.8	15.529	C
C-AB	24	637	0.038	24	0.0	5.874	A
C-A	1066			1066			

A-B	107			107			
A-C	536			536			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	418	0.043	18	0.0	8.985	A
B-A	193	422	0.457	193	0.8	15.690	C
C-AB	24	637	0.038	24	0.0	5.874	A
C-A	1066			1066			
A-B	107			107			
A-C	536			536			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	474	0.031	15	0.0	7.829	A
B-A	158	467	0.337	159	0.5	11.709	B
C-AB	20	661	0.030	20	0.0	5.616	A
C-A	871			871			
A-B	88			88			
A-C	437			437			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	506	0.024	12	0.0	7.295	A
B-A	132	500	0.264	133	0.4	9.809	A
C-AB	17	678	0.024	17	0.0	5.442	A
C-A	729			729			
A-B	73			73			
A-C	366			366			

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		0.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	1030	100.000
B - Pascal Cl		✓	41	100.000
C - Cypress Dr		✓	318	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	303	727
	B - Pascal Cl	38	0	3
	C - Cypress Dr	305	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	0	0
	B - Pascal Cl	0	0	0
	C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	8.01	0.0	A
B-A	0.09	8.91	0.1	A
C-AB	0.03	6.87	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	505	0.004	2	0.0	7.166	A
B-A	29	517	0.056	29	0.1	7.373	A
C-AB	10	610	0.016	10	0.0	5.994	A
C-A	230			230			
A-B	228			228			
A-C	548			548			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	483	0.006	3	0.0	7.497	A
B-A	34	487	0.071	34	0.1	7.953	A
C-AB	12	580	0.020	12	0.0	6.335	A
C-A	274			274			
A-B	272			272			
A-C	654			654			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	453	0.007	3	0.0	8.012	A
B-A	42	446	0.095	42	0.1	8.911	A
C-AB	14	538	0.027	14	0.0	6.875	A
C-A	336			336			
A-B	333			333			
A-C	801			801			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	453	0.007	3	0.0	8.013	A
B-A	42	446	0.095	42	0.1	8.915	A
C-AB	14	538	0.027	14	0.0	6.875	A
C-A	336			336			
A-B	333			333			
A-C	801			801			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	483	0.006	3	0.0	7.501	A
B-A	34	487	0.071	35	0.1	7.960	A
C-AB	12	580	0.020	12	0.0	6.335	A
C-A	274			274			
A-B	272			272			
A-C	654			654			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	504	0.004	2	0.0	7.170	A
B-A	29	517	0.056	29	0.1	7.384	A
C-AB	10	610	0.016	10	0.0	5.994	A

C-A	230			230			
A-B	228			228			
A-C	548			548			

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		1.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	489	100.000
B - Pascal Cl		✓	191	100.000
C - Cypress Dr		✓	552	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	**B - Pascal Cl**	**C - Cypress Dr**
From	**A - Cypress Dr**	0	98	392
	B - Pascal Cl	175	0	16
	C - Cypress Dr	530	22	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
A - Cypress Dr	0	0	0
B - Pascal Cl	0	0	0
C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	8.14	0.0	A
B-A	0.39	11.70	0.6	B
C-AB	0.04	5.68	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	523	0.023	12	0.0	7.041	A
B-A	132	554	0.238	131	0.3	8.486	A
C-AB	17	692	0.024	16	0.0	5.326	A
C-A	399			399			
A-B	73			73			
A-C	295			295			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	499	0.029	15	0.0	7.424	A
B-A	158	531	0.296	157	0.4	9.611	A
C-AB	20	678	0.029	20	0.0	5.468	A
C-A	476			476			
A-B	88			88			
A-C	352			352			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	460	0.039	18	0.0	8.134	A
B-A	193	500	0.385	192	0.6	11.646	B
C-AB	24	658	0.037	24	0.0	5.679	A
C-A	583			583			

A-B	107			107			
A-C	431			431			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	460	0.039	18	0.0	8.144	A
B-A	193	500	0.385	193	0.6	11.703	B
C-AB	24	658	0.037	24	0.0	5.679	A
C-A	583			583			
A-B	107			107			
A-C	431			431			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	499	0.029	15	0.0	7.435	A
B-A	158	531	0.296	158	0.4	9.671	A
C-AB	20	678	0.029	20	0.0	5.469	A
C-A	476			476			
A-B	88			88			
A-C	352			352			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	523	0.023	12	0.0	7.051	A
B-A	132	554	0.238	132	0.3	8.555	A
C-AB	17	692	0.024	17	0.0	5.328	A
C-A	399			399			
A-B	73			73			
A-C	295			295			

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		0.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	2172	100.000
B - Pascal Cl		✓	38	100.000
C - Cypress Dr		✓	419	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	268	1904
	B - Pascal Cl	35	0	3
	C - Cypress Dr	406	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
From	A - Cypress Dr	0	0	0
	B - Pascal Cl	0	0	0
	C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	15.12	0.0	C
B-A	0.20	24.24	0.3	C
C-AB	0.05	13.34	0.1	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	363	0.006	2	0.0	9.974	A
B-A	26	339	0.077	26	0.1	11.475	B
C-AB	10	437	0.022	10	0.0	8.428	A
C-A	306			306			
A-B	202			202			
A-C	1434			1434			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	313	0.009	3	0.0	11.594	B
B-A	31	275	0.113	31	0.1	14.733	B
C-AB	12	373	0.031	12	0.0	9.969	A
C-A	365			365			
A-B	241			241			
A-C	1712			1712			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	242	0.014	3	0.0	15.101	C
B-A	38	187	0.204	38	0.2	24.084	C
C-AB	14	284	0.050	14	0.1	13.334	B
C-A	447			447			
A-B	295			295			
A-C	2097			2097			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	241	0.014	3	0.0	15.118	C
B-A	38	187	0.204	38	0.3	24.235	C
C-AB	14	284	0.050	14	0.1	13.342	B
C-A	447			447			
A-B	295			295			
A-C	2097			2097			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	313	0.009	3	0.0	11.606	B
B-A	31	275	0.113	32	0.1	14.812	B
C-AB	12	373	0.031	12	0.0	9.976	A
C-A	365			365			
A-B	241			241			
A-C	1712			1712			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	363	0.006	2	0.0	9.981	A
B-A	26	339	0.077	26	0.1	11.514	B
C-AB	10	437	0.022	10	0.0	8.432	A

C-A	306			306			
A-B	202			202			
A-C	1434			1434			

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	Cypress Drive/Pascal Close	T-Junction	Two-way		1.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Dr		✓	612	100.000
B - Pascal Cl		✓	169	100.000
C - Cypress Dr		✓	1533	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Dr	**B - Pascal Cl**	**C - Cypress Dr**
From	**A - Cypress Dr**	0	92	521
	B - Pascal Cl	153	0	16
	C - Cypress Dr	1511	22	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Cypress Dr	B - Pascal Cl	C - Cypress Dr
A - Cypress Dr	0	0	0
B - Pascal Cl	0	0	0
C - Cypress Dr	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	9.44	0.0	A
B-A	0.49	20.60	0.9	C
C-AB	0.04	5.94	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	505	0.024	12	0.0	7.295	A
B-A	115	446	0.258	114	0.3	10.803	B
C-AB	17	674	0.025	16	0.0	5.477	A
C-A	1138			1138			
A-B	69			69			
A-C	392			392			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	471	0.031	15	0.0	7.888	A
B-A	138	403	0.342	137	0.5	13.514	B
C-AB	20	656	0.030	20	0.0	5.660	A
C-A	1358			1358			
A-B	82			82			
A-C	468			468			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	401	0.044	18	0.0	9.387	A
B-A	168	343	0.491	167	0.9	20.241	C
C-AB	24	631	0.038	24	0.0	5.935	A
C-A	1664			1664			

A-B	101			101			
A-C	573			573			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	399	0.045	18	0.0	9.442	A
B-A	168	343	0.491	168	0.9	20.597	C
C-AB	24	631	0.038	24	0.0	5.935	A
C-A	1664			1664			
A-B	101			101			
A-C	573			573			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	469	0.031	15	0.0	7.922	A
B-A	138	403	0.342	139	0.5	13.751	B
C-AB	20	656	0.030	20	0.0	5.661	A
C-A	1358			1358			
A-B	82			82			
A-C	468			468			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	504	0.024	12	0.0	7.319	A
B-A	115	446	0.258	116	0.4	10.939	B
C-AB	17	674	0.025	17	0.0	5.480	A
C-A	1138			1138			
A-B	69			69			
A-C	392			392			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 4_Cypress_Drive_Willowdene_Way.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:32:46

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-AC	1.0	11.72	0.49	B	0.4	9.69	0.31	A
Stream C-AB	0.2	6.49	0.19	A	1.0	12.15	0.51	B
	2023 + Com Dev							
Stream B-AC	1.0	12.26	0.50	B	0.5	10.08	0.32	B
Stream C-AB	0.2	6.62	0.19	A	1.1	12.60	0.52	B
	2023 + Com Dev + Dev							
Stream B-AC	1.3	15.63	0.57	C	0.7	14.23	0.40	B
Stream C-AB	0.2	6.82	0.20	A	1.6	18.31	0.62	C
	2028 + Com Dev							
Stream B-AC	1.0	12.26	0.50	B	0.5	10.08	0.32	B
Stream C-AB	0.2	6.62	0.19	A	1.1	12.60	0.52	B
	2028 + Com Dev + Dev							
Stream B-AC	1.6	20.13	0.63	C	1.2	26.55	0.56	D
Stream C-AB	0.2	6.88	0.20	A	3.2	32.39	0.76	D

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	04/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Cypress Drive		Major
B	Willowdene Way		Minor
C	Cypress Drive		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Cypress Drive	13.70	✓	3.69	✓	2.90	202.0	✓	8.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Willowdene Way	One lane	3.88	63	67

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	626	0.070	0.177	0.111	0.253
1	B-C	725	0.074	0.187	-	-
1	C-B	744	0.192	0.192	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	283	100.000
B - Willowdene Way		✓	272	100.000
C - Cypress Drive		✓	1102	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	25	258
	B - Willowdene Way	48	0	224
	C - Cypress Drive	985	117	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.49	11.72	1.0	B
C-AB	0.19	6.49	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	640	0.319	203	0.5	8.193	A
C-AB	88	703	0.126	88	0.1	5.848	A
C-A	742			742			

A-B	19			19			
A-C	194			194			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	244	626	0.390	244	0.6	9.387	A
C-AB	105	695	0.152	105	0.2	6.104	A
C-A	886			886			
A-B	23			23			
A-C	232			232			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	299	606	0.493	298	1.0	11.622	B
C-AB	129	684	0.189	129	0.2	6.481	A
C-A	1085			1085			
A-B	28			28			
A-C	284			284			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	299	606	0.493	299	1.0	11.716	B
C-AB	129	684	0.189	129	0.2	6.488	A
C-A	1085			1085			
A-B	28			28			
A-C	284			284			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	244	626	0.390	245	0.6	9.485	A
C-AB	105	695	0.152	106	0.2	6.113	A
C-A	886			886			
A-B	23			23			
A-C	232			232			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	640	0.319	205	0.5	8.291	A
C-AB	88	703	0.126	88	0.1	5.862	A
C-A	742			742			
A-B	19			19			
A-C	194			194			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	662	100.000
B - Willowdene Way		✓	152	100.000
C - Cypress Drive		✓	627	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	104	558
	B - Willowdene Way	32	0	120
	C - Cypress Drive	346	280	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.31	9.69	0.4	A
C-AB	0.51	12.15	1.0	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	593	0.193	113	0.2	7.496	A
C-AB	211	648	0.326	209	0.5	8.167	A
C-A	261			261			
A-B	78			78			
A-C	420			420			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	571	0.239	136	0.3	8.282	A
C-AB	252	630	0.400	251	0.7	9.500	A
C-A	311			311			
A-B	93			93			
A-C	502			502			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	539	0.310	167	0.4	9.655	A
C-AB	310	606	0.511	308	1.0	12.038	B
C-A	380			380			
A-B	114			114			
A-C	615			615			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	539	0.310	167	0.4	9.686	A
C-AB	310	606	0.511	310	1.0	12.150	B
C-A	380			380			
A-B	114			114			
A-C	615			615			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	570	0.240	137	0.3	8.317	A
C-AB	252	630	0.400	254	0.7	9.604	A
C-A	311			311			
A-B	93			93			

A-C	502			502			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	593	0.193	115	0.2	7.537	A
C-AB	211	648	0.326	212	0.5	8.267	A
C-A	261			261			
A-B	78			78			
A-C	420			420			

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	337	100.000
B - Willowdene Way		✓	272	100.000
C - Cypress Drive		✓	1154	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
	A - Cypress Drive	0	25	312
	B - Willowdene Way	48	0	224
	C - Cypress Drive	1037	117	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.50	12.26	1.0	B
C-AB	0.19	6.62	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	631	0.324	203	0.5	8.363	A
C-AB	88	695	0.127	88	0.1	5.923	A
C-A	781			781			
A-B	19			19			
A-C	235			235			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	244	615	0.397	243	0.6	9.661	A
C-AB	105	686	0.154	105	0.2	6.202	A
C-A	932			932			
A-B	23			23			
A-C	280			280			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	299	592	0.505	298	1.0	12.155	B
C-AB	129	672	0.192	129	0.2	6.618	A
C-A	1142			1142			
A-B	28			28			
A-C	343			343			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	299	592	0.505	299	1.0	12.264	B
C-AB	129	672	0.192	129	0.2	6.623	A
C-A	1142			1142			
A-B	28			28			
A-C	343			343			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	244	615	0.397	246	0.7	9.769	A
C-AB	105	686	0.154	106	0.2	6.211	A
C-A	932			932			
A-B	23			23			
A-C	280			280			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	631	0.324	205	0.5	8.466	A
C-AB	88	695	0.127	88	0.1	5.938	A
C-A	781			781			
A-B	19			19			
A-C	235			235			

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	714	100.000
B - Willowdene Way		✓	152	100.000
C - Cypress Drive		✓	696	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	104	610
	B - Willowdene Way	32	0	120
	C - Cypress Drive	415	280	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.32	10.08	0.5	B
C-AB	0.52	12.60	1.1	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	584	0.196	113	0.2	7.641	A
C-AB	211	641	0.330	209	0.5	8.307	A
C-A	313			313			
A-B	78			78			
A-C	460			460			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	559	0.244	136	0.3	8.506	A
C-AB	252	621	0.406	251	0.7	9.723	A
C-A	373			373			
A-B	93			93			
A-C	549			549			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	525	0.319	167	0.5	10.043	B
C-AB	310	595	0.521	308	1.1	12.476	B
C-A	456			456			
A-B	114			114			
A-C	672			672			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	524	0.319	167	0.5	10.079	B
C-AB	310	595	0.521	310	1.1	12.604	B
C-A	456			456			
A-B	114			114			
A-C	672			672			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	559	0.244	137	0.3	8.544	A
C-AB	252	621	0.406	254	0.7	9.844	A
C-A	373			373			
A-B	93			93			
A-C	549			549			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	583	0.196	115	0.2	7.687	A
C-AB	211	641	0.330	212	0.5	8.413	A
C-A	313			313			
A-B	78			78			
A-C	460			460			

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	413	100.000
B - Willowdene Way		✓	281	100.000
C - Cypress Drive		✓	1642	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	27	386
	B - Willowdene Way	57	0	224
	C - Cypress Drive	1525	117	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.57	15.63	1.3	C
C-AB	0.20	6.82	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	211	598	0.353	209	0.5	9.195	A
C-AB	88	684	0.129	88	0.1	6.029	A
C-A	1148			1148			
A-B	20			20			
A-C	290			290			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	252	575	0.439	251	0.8	11.097	B
C-AB	105	672	0.157	105	0.2	6.344	A
C-A	1371			1371			
A-B	24			24			
A-C	347			347			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	309	539	0.573	307	1.3	15.370	C
C-AB	129	657	0.197	129	0.2	6.818	A
C-A	1679			1679			
A-B	30			30			
A-C	425			425			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	309	539	0.573	309	1.3	15.632	C
C-AB	129	657	0.197	129	0.2	6.824	A
C-A	1679			1679			
A-B	30			30			
A-C	425			425			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	252	575	0.439	254	0.8	11.308	B
C-AB	105	672	0.157	106	0.2	6.352	A
C-A	1371			1371			
A-B	24			24			
A-C	347			347			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	211	598	0.353	212	0.6	9.346	A
C-AB	88	684	0.129	88	0.1	6.044	A
C-A	1148			1148			
A-B	20			20			
A-C	290			290			

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	1153	100.000
B - Willowdene Way		✓	154	100.000
C - Cypress Drive		✓	788	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	112	1041
	B - Willowdene Way	34	0	120
	C - Cypress Drive	508	280	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.40	14.23	0.7	B
C-AB	0.62	18.31	1.6	C
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	517	0.225	115	0.3	8.938	A
C-AB	211	577	0.366	209	0.6	9.710	A
C-A	382			382			
A-B	84			84			
A-C	784			784			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	478	0.290	138	0.4	10.566	B
C-AB	253	546	0.462	251	0.8	12.174	B
C-A	456			456			
A-B	100			100			
A-C	936			936			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	170	423	0.401	169	0.7	14.099	B
C-AB	316	512	0.617	313	1.6	17.841	C
C-A	552			552			
A-B	123			123			
A-C	1146			1146			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	170	423	0.402	170	0.7	14.225	B
C-AB	316	512	0.617	316	1.6	18.314	C
C-A	552			552			
A-B	123			123			
A-C	1146			1146			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	478	0.290	140	0.4	10.671	B
C-AB	253	546	0.462	255	0.9	12.505	B
C-A	456			456			
A-B	100			100			
A-C	936			936			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	516	0.225	117	0.3	9.017	A
C-AB	211	577	0.366	212	0.6	9.891	A
C-A	382			382			
A-B	84			84			
A-C	784			784			

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	337	100.000
B - Willowdene Way		✓	272	100.000
C - Cypress Drive		✓	1154	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	25	312
	B - Willowdene Way	48	0	224
	C - Cypress Drive	1037	117	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.50	12.26	1.0	B
C-AB	0.19	6.62	0.2	A

C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	631	0.324	203	0.5	8.363	A
C-AB	88	695	0.127	88	0.1	5.923	A
C-A	781			781			
A-B	19			19			
A-C	235			235			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	244	615	0.397	243	0.6	9.661	A
C-AB	105	686	0.154	105	0.2	6.202	A
C-A	932			932			
A-B	23			23			
A-C	280			280			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	299	592	0.505	298	1.0	12.155	B
C-AB	129	672	0.192	129	0.2	6.618	A
C-A	1142			1142			
A-B	28			28			
A-C	343			343			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	299	592	0.505	299	1.0	12.264	B
C-AB	129	672	0.192	129	0.2	6.623	A
C-A	1142			1142			
A-B	28			28			
A-C	343			343			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	244	615	0.397	246	0.7	9.769	A
C-AB	105	686	0.154	106	0.2	6.211	A
C-A	932			932			
A-B	23			23			
A-C	280			280			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	631	0.324	205	0.5	8.466	A
C-AB	88	695	0.127	88	0.1	5.938	A
C-A	781			781			
A-B	19			19			
A-C	235			235			

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	714	100.000
B - Willowdene Way		✓	152	100.000
C - Cypress Drive		✓	696	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	104	610
	B - Willowdene Way	32	0	120
	C - Cypress Drive	415	280	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.32	10.08	0.5	B
C-AB	0.52	12.60	1.1	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	584	0.196	113	0.2	7.641	A
C-AB	211	641	0.330	209	0.5	8.307	A
C-A	313			313			
A-B	78			78			
A-C	460			460			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	559	0.244	136	0.3	8.506	A
C-AB	252	621	0.406	251	0.7	9.723	A
C-A	373			373			
A-B	93			93			
A-C	549			549			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	525	0.319	167	0.5	10.043	B
C-AB	310	595	0.521	308	1.1	12.476	B
C-A	456			456			
A-B	114			114			
A-C	672			672			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	524	0.319	167	0.5	10.079	B
C-AB	310	595	0.521	310	1.1	12.604	B
C-A	456			456			
A-B	114			114			
A-C	672			672			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	559	0.244	137	0.3	8.544	A
C-AB	252	621	0.406	254	0.7	9.844	A
C-A	373			373			
A-B	93			93			
A-C	549			549			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	583	0.196	115	0.2	7.687	A
C-AB	211	641	0.330	212	0.5	8.413	A
C-A	313			313			
A-B	78			78			
A-C	460			460			

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	434	100.000
B - Willowdene Way		✓	273	100.000
C - Cypress Drive		✓	2287	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	27	407
	B - Willowdene Way	57	0	216
	C - Cypress Drive	2170	117	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.63	20.13	1.6	C
C-AB	0.20	6.88	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	206	569	0.361	203	0.6	9.793	A
C-AB	88	681	0.130	88	0.1	6.061	A
C-A	1634			1634			
A-B	20			20			
A-C	306			306			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	246	535	0.459	244	0.8	12.351	B
C-AB	105	669	0.158	105	0.2	6.386	A
C-A	1951			1951			
A-B	24			24			
A-C	366			366			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	301	479	0.628	298	1.6	19.525	C
C-AB	129	652	0.198	129	0.2	6.877	A
C-A	2389			2389			
A-B	30			30			
A-C	448			448			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	301	479	0.628	301	1.6	20.132	C
C-AB	129	652	0.198	129	0.2	6.883	A
C-A	2389			2389			
A-B	30			30			
A-C	448			448			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	246	535	0.459	249	0.9	12.713	B
C-AB	105	669	0.158	106	0.2	6.396	A
C-A	1951			1951			
A-B	24			24			
A-C	366			366			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	206	569	0.362	207	0.6	9.977	A
C-AB	88	681	0.130	88	0.1	6.076	A
C-A	1634			1634			
A-B	20			20			
A-C	306			306			

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cypress Drive		✓	1673	100.000
B - Willowdene Way		✓	154	100.000
C - Cypress Drive		✓	805	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
From	A - Cypress Drive	0	112	1561
	B - Willowdene Way	34	0	120
	C - Cypress Drive	536	269	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Cypress Drive	B - Willowdene Way	C - Cypress Drive
	A - Cypress Drive	0	0	0
	B - Willowdene Way	0	0	0
	C - Cypress Drive	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.56	26.55	1.2	D
C-AB	0.76	32.39	3.2	D
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	442	0.263	115	0.4	10.950	B
C-AB	202	503	0.403	200	0.7	11.792	B
C-A	404			404			
A-B	84			84			
A-C	1176			1176			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	388	0.358	138	0.5	14.366	B
C-AB	243	458	0.530	241	1.1	16.456	C
C-A	480			480			
A-B	100			100			
A-C	1404			1404			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	170	306	0.555	167	1.2	25.494	D
C-AB	344	455	0.757	337	3.0	29.247	D
C-A	542			542			
A-B	123			123			
A-C	1719			1719			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	170	305	0.557	170	1.2	26.546	D
C-AB	344	455	0.757	343	3.2	32.391	D
C-A	542			542			
A-B	123			123			
A-C	1719			1719			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	386	0.359	141	0.6	14.829	B
C-AB	243	458	0.530	251	1.2	18.031	C
C-A	480			480			
A-B	100			100			
A-C	1404			1404			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	442	0.263	117	0.4	11.118	B
C-AB	202	503	0.403	204	0.7	12.153	B
C-A	404			404			
A-B	84			84			
A-C	1176			1176			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 6_A48_Marshfield_Rd (1of 3).j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:35:23

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-AC	0.5	13.92	0.33	B	0.2	9.83	0.19	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2023 + Com Dev							
Stream B-AC	0.5	14.60	0.35	B	0.2	9.99	0.20	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2023 + Com Dev + Dev							
Stream B-AC	0.5	14.64	0.35	B	0.3	10.16	0.20	B
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2028 + Com Dev							
Stream B-AC	0.5	14.90	0.36	B	0.3	10.06	0.21	B
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2028 + Com Dev + Dev							
Stream B-AC	0.5	14.75	0.35	B	0.2	9.80	0.16	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	06/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Phill.Ayres
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A48		Major
B	Marshfield Road	right-turn	Minor
C	A48	Eastbound	Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A48	7.00			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Marshfield Road	One lane	3.50	35	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	513	0.061	0.154	0.097	0.220
1	B-C	655	0.065	0.166	-	-
1	C-B	574	0.145	0.145	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	116	100.000
C - A48		✓	1190	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	116	0	0
	C - A48	1190	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.33	13.92	0.5	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	427	0.205	86	0.3	10.550	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	896			896			

A-B	0			0			
A-C	0			0			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104	410	0.255	104	0.3	11.762	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1070			1070			
A-B	0			0			
A-C	0			0			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128	386	0.331	127	0.5	13.856	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1310			1310			
A-B	0			0			
A-C	0			0			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128	386	0.331	128	0.5	13.915	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1310			1310			
A-B	0			0			
A-C	0			0			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104	410	0.255	105	0.3	11.832	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1070			1070			
A-B	0			0			
A-C	0			0			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	427	0.205	88	0.3	10.635	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	896			896			
A-B	0			0			
A-C	0			0			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	80	100.000
C - A48		✓	551	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	0	0
	B - Marshfield Road	80	0	0
	C - A48	551	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.19	9.83	0.2	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	60	473	0.128	60	0.1	8.697	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	415			415			
A-B	0			0			
A-C	0			0			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	465	0.155	72	0.2	9.151	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	495			495			
A-B	0			0			
A-C	0			0			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	455	0.194	88	0.2	9.816	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	606			606			
A-B	0			0			
A-C	0			0			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	455	0.194	88	0.2	9.828	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	606			606			
A-B	0			0			
A-C	0			0			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	465	0.155	72	0.2	9.163	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	495			495			
A-B	0			0			

A-C	0			0			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	60	473	0.128	61	0.1	8.727	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	415			415			
A-B	0			0			
A-C	0			0			

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	119	100.000
C - A48		✓	1269	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	119	0	0
	C - A48	1269	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.35	14.60	0.5	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	421	0.214	89	0.3	10.812	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	955			955			
A-B	0			0			
A-C	0			0			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	403	0.267	107	0.4	12.155	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1141			1141			
A-B	0			0			
A-C	0			0			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	378	0.348	131	0.5	14.528	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1397			1397			
A-B	0			0			
A-C	0			0			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	378	0.348	131	0.5	14.603	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1397			1397			
A-B	0			0			
A-C	0			0			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	403	0.267	108	0.4	12.239	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1141			1141			
A-B	0			0			
A-C	0			0			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	421	0.214	90	0.3	10.905	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	955			955			
A-B	0			0			
A-C	0			0			

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	82	100.000
C - A48		✓	583	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	82	0	0
	C - A48	583	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	9.99	0.2	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	471	0.132	61	0.1	8.781	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	439			439			
A-B	0			0			
A-C	0			0			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	463	0.160	74	0.2	9.257	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	524			524			
A-B	0			0			
A-C	0			0			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	451	0.201	90	0.2	9.974	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	642			642			
A-B	0			0			
A-C	0			0			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	451	0.201	91	0.2	9.985	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	642			642			
A-B	0			0			
A-C	0			0			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	463	0.160	74	0.2	9.276	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	524			524			
A-B	0			0			
A-C	0			0			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	471	0.132	62	0.2	8.813	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	439			439			
A-B	0			0			
A-C	0			0			

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	119	100.000
C - A48		✓	1275	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	0	0
	B - Marshfield Road	119	0	0
	C - A48	1275	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.35	14.64	0.5	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	420	0.214	89	0.3	10.826	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	960			960			
A-B	0			0			
A-C	0			0			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	402	0.267	107	0.4	12.177	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1146			1146			
A-B	0			0			
A-C	0			0			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	377	0.348	131	0.5	14.570	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1403			1403			
A-B	0			0			
A-C	0			0			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	131	377	0.348	131	0.5	14.642	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1403			1403			
A-B	0			0			
A-C	0			0			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	402	0.267	108	0.4	12.261	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1146			1146			
A-B	0			0			
A-C	0			0			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	420	0.214	90	0.3	10.919	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	960			960			
A-B	0			0			
A-C	0			0			

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)

HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	82	100.000
C - A48		✓	640	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	82	0	0
	C - A48	640	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	10.16	0.3	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	467	0.133	61	0.2	8.870	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	482			482			
A-B	0			0			

A-C	0			0			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	458	0.162	74	0.2	9.378	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	575			575			
A-B	0			0			
A-C	0			0			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	445	0.204	90	0.3	10.144	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	705			705			
A-B	0			0			
A-C	0			0			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	445	0.204	91	0.3	10.158	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	705			705			
A-B	0			0			
A-C	0			0			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	458	0.162	74	0.2	9.397	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	575			575			
A-B	0			0			
A-C	0			0			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	467	0.133	62	0.2	8.905	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	482			482			
A-B	0			0			
A-C	0			0			

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	122	100.000
C - A48		✓	1292	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	122	0	0
	C - A48	1292	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.36	14.90	0.5	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	419	0.219	91	0.3	10.923	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	973			973			
A-B	0			0			
A-C	0			0			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	401	0.273	109	0.4	12.325	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1162			1162			
A-B	0			0			
A-C	0			0			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	375	0.357	133	0.5	14.826	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1423			1423			
A-B	0			0			
A-C	0			0			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	375	0.357	134	0.5	14.904	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1423			1423			
A-B	0			0			
A-C	0			0			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	401	0.273	110	0.4	12.413	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1162			1162			
A-B	0			0			

A-C	0			0			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	419	0.219	92	0.3	11.023	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	973			973			
A-B	0			0			
A-C	0			0			

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	84	100.000
C - A48		✓	593	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	84	0	0
	C - A48	593	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.21	10.06	0.3	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	470	0.134	62	0.2	8.819	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	446			446			
A-B	0			0			
A-C	0			0			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	462	0.163	75	0.2	9.310	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	533			533			
A-B	0			0			
A-C	0			0			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	450	0.205	92	0.3	10.047	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	653			653			
A-B	0			0			
A-C	0			0			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	450	0.205	92	0.3	10.061	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	653			653			
A-B	0			0			
A-C	0			0			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	462	0.163	76	0.2	9.329	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	533			533			
A-B	0			0			
A-C	0			0			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	470	0.134	63	0.2	8.852	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	446			446			
A-B	0			0			
A-C	0			0			

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		1.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	122	100.000
C - A48		✓	1268	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	122	0	0
	C - A48	1268	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.35	14.75	0.5	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	421	0.218	91	0.3	10.865	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	955			955			
A-B	0			0			
A-C	0			0			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	403	0.272	109	0.4	12.236	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1140			1140			
A-B	0			0			
A-C	0			0			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	378	0.355	133	0.5	14.669	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1396			1396			
A-B	0			0			
A-C	0			0			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	378	0.355	134	0.5	14.745	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1396			1396			
A-B	0			0			
A-C	0			0			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	403	0.272	110	0.4	12.325	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	1140			1140			
A-B	0			0			
A-C	0			0			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	421	0.218	92	0.3	10.962	B
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	955			955			
A-B	0			0			
A-C	0			0			

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (1of 2)	T-Junction	One-way from C to A		0.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	0	100.000
B - Marshfield Road		✓	64	100.000
C - A48		✓	710	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	0	0
	B - Marshfield Road	64	0	0
	C - A48	710	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - A48	B - Marshfield Road	C - A48
	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.16	9.80	0.2	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	462	0.104	48	0.1	8.687	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	535			535			
A-B	0			0			
A-C	0			0			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	451	0.127	57	0.1	9.129	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	639			639			
A-B	0			0			
A-C	0			0			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	70	438	0.161	70	0.2	9.791	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	782			782			
A-B	0			0			
A-C	0			0			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	70	438	0.161	70	0.2	9.801	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	782			782			
A-B	0			0			
A-C	0			0			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	451	0.127	58	0.1	9.142	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	639			639			
A-B	0			0			
A-C	0			0			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	462	0.104	48	0.1	8.713	A
C-AB	0	574	0.000	0	0.0	0.000	A
C-A	535			535			
A-B	0			0			
A-C	0			0			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 6_A48_Marshfield_Rd (2 of 3).j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:39:25

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-C	1.0	17.89	0.50	C	1.3	23.14	0.57	C
Stream B-A	0.7	20.12	0.42	C	0.6	25.45	0.38	D
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2023 + Com Dev							
Stream B-C	1.2	20.36	0.54	C	1.6	28.59	0.63	D
Stream B-A	0.8	22.78	0.45	C	0.8	31.42	0.44	D
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2023 + Com Dev + Dev							
Stream B-C	1.4	24.22	0.59	C	1.6	29.40	0.63	D
Stream B-A	1.0	27.19	0.50	D	0.8	32.38	0.45	D
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2028 + Com Dev							
Stream B-C	1.3	21.94	0.57	C	1.8	31.78	0.66	D
Stream B-A	0.9	24.44	0.48	C	0.9	34.92	0.47	D
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2028 + Com Dev + Dev							
Stream B-C	2.0	38.87	0.68	E	1.1	21.06	0.52	C
Stream B-A	1.6	46.09	0.64	E	0.4	23.37	0.31	C

Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	07/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		5.08	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A48		Major
B	Marshfield Road		Minor
C	A48		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A48	6.75			0.0		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Marshfield Road	One lane plus flare	10.00	7.07	4.02	2.77	2.70	✓	1.00	23	46

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	551	0.097	0.246	0.155	0.351
1	B-C	703	0.104	0.264	-	-
1	C-B	574	0.215	0.215	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	813	100.000
B - Marshfield Road		✓	302	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	80	733
	B - Marshfield Road	116	0	186
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.50	17.89	1.0	C
B-A	0.42	20.12	0.7	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	516	0.271	138	0.4	9.503	A
B-A	87	402	0.217	86	0.3	11.361	B
C-A	0			0			
C-B	0	442	0.000	0	0.0	0.000	A
A-B	60			60			
A-C	552			552			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	167	473	0.353	166	0.5	11.708	B
B-A	104	366	0.285	104	0.4	13.681	B
C-A	0			0			
C-B	0	417	0.000	0	0.0	0.000	A
A-B	72			72			
A-C	659			659			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	205	407	0.503	203	1.0	17.504	C
B-A	128	307	0.415	127	0.7	19.768	C
C-A	0			0			
C-B	0	381	0.000	0	0.0	0.000	A
A-B	88			88			
A-C	807			807			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	205	405	0.505	204	1.0	17.890	C
B-A	128	306	0.417	128	0.7	20.124	C
C-A	0			0			
C-B	0	381	0.000	0	0.0	0.000	A
A-B	88			88			
A-C	807			807			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	167	472	0.354	169	0.6	11.941	B
B-A	104	366	0.285	105	0.4	13.893	B
C-A	0			0			
C-B	0	417	0.000	0	0.0	0.000	A
A-B	72			72			
A-C	659			659			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	515	0.272	141	0.4	9.637	A
B-A	87	402	0.217	88	0.3	11.486	B
C-A	0			0			

C-B	0	442	0.000	0	0.0	0.000	A
A-B	60			60			
A-C	552			552			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		4.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1075	100.000
B - Marshfield Road		✓	265	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	111	963
	B - Marshfield Road	80	0	185
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
		A - A48	B - Marshfield Road	C - A48
	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.57	23.14	1.3	C
B-A	0.38	25.45	0.6	D
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	139	483	0.288	138	0.4	10.366	B
B-A	60	348	0.174	60	0.2	12.462	B
C-A	0			0			
C-B	0	400	0.000	0	0.0	0.000	A
A-B	84			84			
A-C	725			725			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	435	0.383	166	0.6	13.333	B
B-A	72	304	0.237	72	0.3	15.477	C
C-A	0			0			
C-B	0	366	0.000	0	0.0	0.000	A
A-B	100			100			
A-C	866			866			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	204	360	0.566	201	1.2	22.322	C
B-A	88	231	0.382	87	0.6	24.804	C
C-A	0			0			
C-B	0	319	0.000	0	0.0	0.000	A

A-B	123			123			
A-C	1061			1061			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	204	359	0.568	204	1.3	23.140	C
B-A	88	230	0.385	88	0.6	25.452	D
C-A	0			0			
C-B	0	319	0.000	0	0.0	0.000	A
A-B	123			123			
A-C	1061			1061			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	434	0.384	169	0.6	13.730	B
B-A	72	303	0.238	73	0.3	15.761	C
C-A	0			0			
C-B	0	366	0.000	0	0.0	0.000	A
A-B	100			100			
A-C	866			866			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	139	483	0.289	140	0.4	10.537	B
B-A	60	347	0.174	61	0.2	12.587	B
C-A	0			0			
C-B	0	400	0.000	0	0.0	0.000	A
A-B	84			84			
A-C	725			725			

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		5.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	854	100.000
B - Marshfield Road		✓	311	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	82	772
	B - Marshfield Road	119	0	191
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.54	20.36	1.2	C
B-A	0.45	22.78	0.8	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	144	506	0.285	142	0.4	9.859	A
B-A	90	394	0.228	89	0.3	11.762	B
C-A	0			0			
C-B	0	436	0.000	0	0.0	0.000	A
A-B	62			62			
A-C	581			581			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	172	461	0.373	171	0.6	12.405	B
B-A	107	355	0.302	107	0.4	14.450	B
C-A	0			0			
C-B	0	409	0.000	0	0.0	0.000	A
A-B	74			74			
A-C	694			694			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	211	389	0.542	208	1.1	19.744	C
B-A	131	291	0.452	130	0.8	22.205	C
C-A	0			0			
C-B	0	372	0.000	0	0.0	0.000	A
A-B	91			91			
A-C	850			850			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	211	387	0.544	210	1.2	20.364	C
B-A	131	289	0.455	131	0.8	22.782	C
C-A	0			0			
C-B	0	372	0.000	0	0.0	0.000	A
A-B	91			91			
A-C	850			850			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	172	459	0.375	174	0.6	12.731	B
B-A	107	354	0.303	109	0.4	14.747	B
C-A	0			0			
C-B	0	409	0.000	0	0.0	0.000	A
A-B	74			74			
A-C	694			694			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	144	505	0.285	145	0.4	10.019	B
B-A	90	393	0.229	90	0.3	11.914	B
C-A	0			0			

C-B	0	436	0.000	0	0.0	0.000	A
A-B	62			62			
A-C	581			581			

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		5.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1137	100.000
B - Marshfield Road		✓	272	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	114	1022
	B - Marshfield Road	82	0	190
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
		A - A48	B - Marshfield Road	C - A48
	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.63	28.59	1.6	D
B-A	0.44	31.42	0.8	D
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	143	470	0.304	141	0.4	10.894	B
B-A	62	336	0.185	61	0.2	13.065	B
C-A	0			0			
C-B	0	390	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	770			770			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	171	418	0.409	170	0.7	14.458	B
B-A	74	288	0.257	74	0.3	16.720	C
C-A	0			0			
C-B	0	354	0.000	0	0.0	0.000	A
A-B	103			103			
A-C	919			919			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	209	336	0.622	206	1.5	26.939	D
B-A	91	207	0.437	89	0.7	30.025	D
C-A	0			0			
C-B	0	305	0.000	0	0.0	0.000	A

A-B	126			126			
A-C	1126			1126			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	209	334	0.626	209	1.6	28.586	D
B-A	91	205	0.443	91	0.8	31.424	D
C-A	0			0			
C-B	0	305	0.000	0	0.0	0.000	A
A-B	126			126			
A-C	1126			1126			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	171	416	0.410	174	0.7	15.093	C
B-A	74	287	0.258	76	0.4	17.182	C
C-A	0			0			
C-B	0	354	0.000	0	0.0	0.000	A
A-B	103			103			
A-C	919			919			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	143	469	0.305	144	0.4	11.107	B
B-A	62	335	0.185	62	0.2	13.220	B
C-A	0			0			
C-B	0	390	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	770			770			

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		6.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	926	100.000
B - Marshfield Road		✓	312	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	82	844
	B - Marshfield Road	119	0	193
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.59	24.22	1.4	C
B-A	0.50	27.19	1.0	D
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	145	491	0.295	143	0.4	10.304	B
B-A	90	380	0.237	89	0.3	12.326	B
C-A	0			0			
C-B	0	424	0.000	0	0.0	0.000	A
A-B	62			62			
A-C	635			635			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	173	442	0.392	172	0.6	13.312	B
B-A	107	338	0.318	107	0.5	15.550	C
C-A	0			0			
C-B	0	395	0.000	0	0.0	0.000	A
A-B	74			74			
A-C	759			759			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	212	362	0.585	209	1.3	23.110	C
B-A	131	266	0.495	130	0.9	26.123	D
C-A	0			0			
C-B	0	355	0.000	0	0.0	0.000	A
A-B	91			91			
A-C	929			929			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	212	360	0.589	212	1.4	24.224	C
B-A	131	263	0.499	131	1.0	27.188	D
C-A	0			0			
C-B	0	355	0.000	0	0.0	0.000	A
A-B	91			91			
A-C	929			929			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	173	440	0.394	176	0.7	13.797	B
B-A	107	336	0.319	109	0.5	15.996	C
C-A	0			0			
C-B	0	395	0.000	0	0.0	0.000	A
A-B	74			74			
A-C	759			759			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	145	490	0.296	146	0.4	10.495	B
B-A	90	379	0.237	91	0.3	12.510	B
C-A	0			0			

C-B	0	424	0.000	0	0.0	0.000	A
A-B	62			62			
A-C	635			635			

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		5.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1146	100.000
B - Marshfield Road		✓	273	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	114	1031
	B - Marshfield Road	82	0	190
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
		A - A48	B - Marshfield Road	C - A48
	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.63	29.40	1.6	D
B-A	0.45	32.38	0.8	D
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	143	468	0.306	141	0.4	10.960	B
B-A	62	334	0.186	61	0.2	13.150	B
C-A	0			0			
C-B	0	388	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	777			777			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	171	415	0.412	170	0.7	14.606	B
B-A	74	286	0.259	74	0.3	16.893	C
C-A	0			0			
C-B	0	352	0.000	0	0.0	0.000	A
A-B	103			103			
A-C	927			927			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	209	333	0.629	206	1.6	27.612	D
B-A	91	204	0.444	89	0.8	30.826	D
C-A	0			0			
C-B	0	303	0.000	0	0.0	0.000	A

A-B	126			126			
A-C	1136			1136			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	209	331	0.633	209	1.6	29.400	D
B-A	91	201	0.450	91	0.8	32.376	D
C-A	0			0			
C-B	0	303	0.000	0	0.0	0.000	A
A-B	126			126			
A-C	1136			1136			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	171	414	0.413	175	0.7	15.280	C
B-A	74	284	0.260	76	0.4	17.384	C
C-A	0			0			
C-B	0	352	0.000	0	0.0	0.000	A
A-B	103			103			
A-C	927			927			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	143	467	0.306	144	0.4	11.179	B
B-A	62	334	0.186	62	0.2	13.308	B
C-A	0			0			
C-B	0	388	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	777			777			

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		6.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	870	100.000
B - Marshfield Road		✓	317	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	84	786
	B - Marshfield Road	122	0	195
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.57	21.94	1.3	C
B-A	0.48	24.44	0.9	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	147	502	0.292	145	0.4	10.048	B
B-A	92	390	0.235	90	0.3	11.962	B
C-A	0			0			
C-B	0	433	0.000	0	0.0	0.000	A
A-B	63			63			
A-C	592			592			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	175	455	0.385	174	0.6	12.791	B
B-A	109	351	0.312	109	0.4	14.856	B
C-A	0			0			
C-B	0	406	0.000	0	0.0	0.000	A
A-B	75			75			
A-C	707			707			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	215	380	0.565	212	1.2	21.124	C
B-A	134	283	0.474	132	0.9	23.676	C
C-A	0			0			
C-B	0	368	0.000	0	0.0	0.000	A
A-B	92			92			
A-C	866			866			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	215	378	0.568	214	1.3	21.936	C
B-A	134	281	0.477	134	0.9	24.443	C
C-A	0			0			
C-B	0	368	0.000	0	0.0	0.000	A
A-B	92			92			
A-C	866			866			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	175	453	0.387	178	0.6	13.184	B
B-A	109	349	0.313	111	0.5	15.217	C
C-A	0			0			
C-B	0	406	0.000	0	0.0	0.000	A
A-B	75			75			
A-C	707			707			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	147	501	0.293	148	0.4	10.223	B
B-A	92	390	0.235	92	0.3	12.129	B
C-A	0			0			

C-B	0	433	0.000	0	0.0	0.000	A
A-B	63			63			
A-C	592			592			

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		6.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1156	100.000
B - Marshfield Road		✓	277	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	116	1040
	B - Marshfield Road	84	0	193
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
		A - A48	B - Marshfield Road	C - A48
	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.66	31.78	1.8	D
B-A	0.47	34.92	0.9	D
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	146	466	0.313	144	0.4	11.127	B
B-A	63	332	0.190	62	0.2	13.306	B
C-A	0			0			
C-B	0	387	0.000	0	0.0	0.000	A
A-B	88			88			
A-C	783			783			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	174	412	0.422	173	0.7	14.981	B
B-A	75	283	0.266	75	0.4	17.258	C
C-A	0			0			
C-B	0	350	0.000	0	0.0	0.000	A
A-B	105			105			
A-C	935			935			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	327	0.651	209	1.7	29.474	D
B-A	92	198	0.466	90	0.8	32.884	D
C-A	0			0			
C-B	0	300	0.000	0	0.0	0.000	A

A-B	128			128			
A-C	1145			1145			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	325	0.655	213	1.8	31.779	D
B-A	92	195	0.474	92	0.9	34.916	D
C-A	0			0			
C-B	0	300	0.000	0	0.0	0.000	A
A-B	128			128			
A-C	1145			1145			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	174	410	0.424	178	0.8	15.783	C
B-A	75	281	0.268	77	0.4	17.845	C
C-A	0			0			
C-B	0	350	0.000	0	0.0	0.000	A
A-B	105			105			
A-C	935			935			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	146	465	0.313	147	0.5	11.364	B
B-A	63	331	0.190	64	0.2	13.481	B
C-A	0			0			
C-B	0	387	0.000	0	0.0	0.000	A
A-B	88			88			
A-C	783			783			

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		8.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1103	100.000
B - Marshfield Road		✓	300	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	84	1019
	B - Marshfield Road	122	0	178
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48	B - Marshfield Road	C - A48
From	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.68	38.87	2.0	E
B-A	0.64	46.09	1.6	E
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	134	452	0.296	132	0.4	11.194	B
B-A	92	350	0.262	90	0.3	13.784	B
C-A	0			0			
C-B	0	395	0.000	0	0.0	0.000	A
A-B	63			63			
A-C	767			767			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	160	393	0.407	159	0.7	15.309	C
B-A	109	301	0.364	109	0.6	18.625	C
C-A	0			0			
C-B	0	361	0.000	0	0.0	0.000	A
A-B	75			75			
A-C	916			916			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	196	292	0.671	191	1.8	34.259	D
B-A	134	215	0.624	130	1.5	40.901	E
C-A	0			0			
C-B	0	313	0.000	0	0.0	0.000	A
A-B	92			92			
A-C	1122			1122			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	196	287	0.684	195	2.0	38.871	E
B-A	134	210	0.637	133	1.6	46.088	E
C-A	0			0			
C-B	0	313	0.000	0	0.0	0.000	A
A-B	92			92			
A-C	1122			1122			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	160	389	0.412	165	0.7	16.468	C
B-A	109	298	0.367	114	0.6	19.879	C
C-A	0			0			
C-B	0	361	0.000	0	0.0	0.000	A
A-B	75			75			
A-C	916			916			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	134	451	0.297	135	0.4	11.449	B
B-A	92	350	0.262	93	0.4	14.063	B
C-A	0			0			

C-B	0	395	0.000	0	0.0	0.000	A
A-B	63			63			
A-C	767			767			

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A48/Marshfield Road (2 of 3)	T-Junction	Two-way		3.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		✓	1133	100.000
B - Marshfield Road		✓	234	100.000
C - A48		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48	**B - Marshfield Road**	**C - A48**
From	**A - A48**	0	116	1016
	B - Marshfield Road	64	0	170
	C - A48	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
		A - A48	B - Marshfield Road	C - A48
	A - A48	0	0	0
	B - Marshfield Road	0	0	0
	C - A48	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.52	21.06	1.1	C
B-A	0.31	23.37	0.4	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	479	0.267	127	0.4	10.179	B
B-A	48	339	0.142	47	0.2	12.338	B
C-A	0			0			
C-B	0	391	0.000	0	0.0	0.000	A
A-B	88			88			
A-C	765			765			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	153	430	0.355	152	0.5	12.902	B
B-A	57	295	0.194	57	0.2	15.115	C
C-A	0			0			
C-B	0	355	0.000	0	0.0	0.000	A
A-B	105			105			
A-C	914			914			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	359	0.522	185	1.0	20.521	C
B-A	70	225	0.312	69	0.4	22.990	C
C-A	0			0			
C-B	0	306	0.000	0	0.0	0.000	A

A-B	128			128			
A-C	1119			1119			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	358	0.523	187	1.1	21.055	C
B-A	70	224	0.313	70	0.4	23.372	C
C-A	0			0			
C-B	0	306	0.000	0	0.0	0.000	A
A-B	128			128			
A-C	1119			1119			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	153	430	0.356	155	0.6	13.193	B
B-A	57	294	0.195	58	0.2	15.303	C
C-A	0			0			
C-B	0	355	0.000	0	0.0	0.000	A
A-B	105			105			
A-C	914			914			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	478	0.268	129	0.4	10.323	B
B-A	48	338	0.142	48	0.2	12.435	B
C-A	0			0			
C-B	0	391	0.000	0	0.0	0.000	A
A-B	88			88			
A-C	765			765			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 6_A48_Marshfield_Rd (3 of 3).j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:42:32

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Peak
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Peak
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Peak
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Peak
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-BCD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream D-ABC	0.5	11.48	0.32	B	0.7	14.19	0.41	B
Stream C-ABD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2023 + Com Dev							
Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-BCD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream D-ABC	0.5	11.83	0.34	B	0.8	14.90	0.43	B
Stream C-ABD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2023 + Com Dev + Dev							
Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-BCD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream D-ABC	0.5	12.18	0.34	B	0.8	14.97	0.43	B
Stream C-ABD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2028 + Com Dev							
Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-BCD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream D-ABC	0.5	12.03	0.35	B	0.8	15.26	0.44	C

Stream C-ABD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2028 + Com Dev + Dev							
Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-BCD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream D-ABC	0.5	12.51	0.33	B	0.7	14.23	0.41	B
Stream C-ABD	0.0	0.00	0.00	A	0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	06/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Phill.Ayres
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A48		Major
B	Marshfield Road		Minor
C	A48		Major
D	Central Reservation		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A48	6.75			0.0	✓	0.00
C - A48	6.75				✓	

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Marshfield Road	One lane	2.20	0	0
D - Central Reservation	One lane	3.00	200	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C

1	A-D	574	-	-	-	-	-	-	0.150	0.214	0.150	-	-	-
1	B-A	440	0.054	0.136	0.136	-	-	-	0.086	0.195	-	0.136	0.136	0.068
1	B-C	574	0.059	0.150	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	440	0.054	0.136	0.136	-	-	-	0.086	0.195	0.086	-	-	-
1	B-D, offside lane	440	0.054	0.136	0.136	-	-	-	0.086	0.195	0.086	-	-	-
1	C-B	574	0.150	0.150	0.214	-	-	-	-	-	-	-	-	-
1	D-A	649	-	-	-	-	-	-	0.169	-	0.067	-	-	-
1	D-B, nearside lane	563	0.110	0.110	0.249	-	-	-	0.175	0.175	0.069	-	-	-
1	D-B, offside lane	563	0.110	0.110	0.249	-	-	-	0.175	0.175	0.069	-	-	-
1	D-C	563	-	0.110	0.249	0.087	0.175	0.175	0.175	0.175	0.069	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	813	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	137	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	**B - Marshfield Road**	**C - A48**	**D - Central Reservation**
From	**A - A48**	0	80	733	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	137	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	**B - Marshfield Road**	**C - A48**	**D - Central Reservation**
From	**A - A48**	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					73	110
A-C					673	1009
D-ABC	0.32	11.48	0.5	B	126	189
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	382	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	60	15			60				
A-C	552	138			552				
D-ABC	103	26	495	0.208	102	0.0	0.3	9.128	A
C-ABD	0	0	482	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	365	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	72	18			72				
A-C	659	165			659				
D-ABC	123	31	482	0.255	123	0.3	0.3	10.002	B
C-ABD	0	0	464	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	342	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	88	22			88				
A-C	807	202			807				
D-ABC	151	38	464	0.325	150	0.3	0.5	11.443	B
C-ABD	0	0	440	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				

C-A	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	342	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	88	22			88				
A-C	807	202			807				
D-ABC	151	38	464	0.325	151	0.5	0.5	11.478	B
C-ABD	0	0	440	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	365	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	72	18			72				
A-C	659	165			659				
D-ABC	123	31	482	0.255	124	0.5	0.3	10.050	B
C-ABD	0	0	464	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	382	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	60	15			60				
A-C	552	138			552				
D-ABC	103	26	495	0.208	103	0.3	0.3	9.192	A
C-ABD	0	0	482	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	1075	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	111	963	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	163	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0

A-BCD	0.00	0.00	0.0	A	0	0
A-B					102	153
A-C					884	1326
D-ABC	0.41	14.19	0.7	B	149	224
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	355	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	84	21			84				
A-C	725	181			725				
D-ABC	122	31	474	0.259	121	0.0	0.3	10.167	B
C-ABD	0	0	453	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	334	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	100	25			100				
A-C	866	217			866				
D-ABC	146	37	457	0.320	146	0.3	0.5	11.563	B
C-ABD	0	0	429	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	303	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	123	31			123				
A-C	1061	265			1061				
D-ABC	179	45	433	0.414	178	0.5	0.7	14.090	B
C-ABD	0	0	397	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	303	0.000	0	0.0	0.0	0.000	A

A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	123	31			123				
A-C	1061	265			1061				
D-ABC	179	45	433	0.414	179	0.7	0.7	14.187	B
C-ABD	0	0	397	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	334	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	100	25			100				
A-C	866	217			866				
D-ABC	146	37	457	0.320	147	0.7	0.5	11.667	B
C-ABD	0	0	429	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	355	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	84	21			84				
A-C	725	181			725				
D-ABC	122	31	474	0.259	123	0.5	0.4	10.275	B
C-ABD	0	0	453	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2023 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	854	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	141	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	82	772	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	141	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					76	113
A-C					708	1063
D-ABC	0.34	11.83	0.5	B	129	194
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	378	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	62	16			62				
A-C	581	145			581				
D-ABC	106	27	492	0.216	105	0.0	0.3	9.277	A
C-ABD	0	0	478	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	360	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	74	19			74				
A-C	694	173			694				
D-ABC	127	32	478	0.265	126	0.3	0.4	10.217	B
C-ABD	0	0	459	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	336	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	850	212			850				
D-ABC	155	39	459	0.338	155	0.4	0.5	11.786	B
C-ABD	0	0	433	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	336	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	850	212			850				
D-ABC	155	39	459	0.338	155	0.5	0.5	11.833	B
C-ABD	0	0	433	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	360	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	74	19			74				
A-C	694	173			694				
D-ABC	127	32	478	0.265	127	0.5	0.4	10.273	B
C-ABD	0	0	459	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	378	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	62	16			62				
A-C	581	145			581				
D-ABC	106	27	492	0.216	107	0.4	0.3	9.345	A
C-ABD	0	0	478	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)

✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	1137	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	167	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	**B - Marshfield Road**	**C - A48**	**D - Central Reservation**
From	**A - A48**	0	114	1022	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	167	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	**B - Marshfield Road**	**C - A48**	**D - Central Reservation**
From	**A - A48**	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					105	157
A-C					938	1407
D-ABC	0.43	14.90	0.8	B	153	230
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	349	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	86	22			86				
A-C	770	192			770				
D-ABC	126	31	469	0.268	124	0.0	0.4	10.409	B
C-ABD	0	0	446	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	326	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	103	26			103				
A-C	919	230			919				
D-ABC	150	38	451	0.333	150	0.4	0.5	11.943	B
C-ABD	0	0	421	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	294	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	126	31			126				
A-C	1126	281			1126				
D-ABC	184	46	425	0.432	183	0.5	0.7	14.787	B
C-ABD	0	0	386	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	294	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	126	31			126				
A-C	1126	281			1126				
D-ABC	184	46	425	0.432	184	0.7	0.8	14.904	B
C-ABD	0	0	386	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	326	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	103	26			103				

A-C	919	230			919				
D-ABC	150	38	451	0.333	151	0.8	0.5	12.065	B
C-ABD	0	0	421	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	349	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	86	22			86				
A-C	770	192			770				
D-ABC	126	31	469	0.268	126	0.5	0.4	10.531	B
C-ABD	0	0	446	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2023 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2023 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	926	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000

C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	141	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	**B - Marshfield Road**	**C - A48**	**D - Central Reservation**
From	**A - A48**	0	82	844	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	141	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	**B - Marshfield Road**	**C - A48**	**D - Central Reservation**
From	**A - A48**	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					76	113
A-C					774	1161
D-ABC	0.34	12.18	0.5	B	129	194
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	370	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	62	16			62				

A-C	635	159			635				
D-ABC	106	27	486	0.218	105	0.0	0.3	9.420	A
C-ABD	0	0	470	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	351	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	74	19			74				
A-C	759	190			759				
D-ABC	127	32	471	0.269	126	0.3	0.4	10.429	B
C-ABD	0	0	449	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	325	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	929	232			929				
D-ABC	155	39	451	0.345	155	0.4	0.5	12.134	B
C-ABD	0	0	421	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	325	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	929	232			929				
D-ABC	155	39	451	0.345	155	0.5	0.5	12.181	B
C-ABD	0	0	421	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	351	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	74	19			74				
A-C	759	190			759				
D-ABC	127	32	471	0.269	127	0.5	0.4	10.487	B
C-ABD	0	0	449	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	370	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	62	16			62				
A-C	635	159			635				
D-ABC	106	27	486	0.218	107	0.4	0.3	9.494	A
C-ABD	0	0	470	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	1146	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	167	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	114	1031	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	167	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					105	157
A-C					946	1420
D-ABC	0.43	14.97	0.8	B	153	230
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	348	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	86	22			86				
A-C	777	194			777				
D-ABC	126	31	468	0.269	124	0.0	0.4	10.432	B
C-ABD	0	0	445	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	325	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	103	26			103				
A-C	927	232			927				
D-ABC	150	38	450	0.334	150	0.4	0.5	11.979	B
C-ABD	0	0	420	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	292	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	126	31			126				
A-C	1136	284			1136				
D-ABC	184	46	424	0.434	183	0.5	0.7	14.856	B
C-ABD	0	0	385	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	292	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	126	31			126				
A-C	1136	284			1136				
D-ABC	184	46	424	0.434	184	0.7	0.8	14.973	B
C-ABD	0	0	385	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	325	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	103	26			103				
A-C	927	232			927				
D-ABC	150	38	450	0.334	151	0.8	0.5	12.100	B
C-ABD	0	0	420	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	348	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	86	22			86				

A-C	777	194			777				
D-ABC	126	31	468	0.269	126	0.5	0.4	10.555	B
C-ABD	0	0	445	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2028 + Com Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2028 + Com Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	870	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	84	786	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	144	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					77	116
A-C					722	1082
D-ABC	0.35	12.03	0.5	B	132	198
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	376	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	63	16			63				
A-C	592	148			592				
D-ABC	108	27	491	0.221	107	0.0	0.3	9.357	A
C-ABD	0	0	476	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	358	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	75	19			75				
A-C	707	177			707				
D-ABC	129	32	477	0.271	129	0.3	0.4	10.337	B
C-ABD	0	0	457	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	334	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	92	23			92				
A-C	866	216			866				
D-ABC	158	40	457	0.346	158	0.4	0.5	11.982	B
C-ABD	0	0	430	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	334	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	92	23			92				
A-C	866	216			866				
D-ABC	158	40	457	0.346	158	0.5	0.5	12.029	B
C-ABD	0	0	430	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	358	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	75	19			75				
A-C	707	177			707				
D-ABC	129	32	477	0.271	130	0.5	0.4	10.394	B
C-ABD	0	0	457	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	376	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	63	16			63				

A-C	592	148			592				
D-ABC	108	27	491	0.221	109	0.4	0.3	9.428	A
C-ABD	0	0	476	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	1156	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	170	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	116	1040	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	170	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					107	160
A-C					954	1431
D-ABC	0.44	15.26	0.8	C	156	234
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	347	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	88	22			88				
A-C	783	196			783				
D-ABC	128	32	467	0.274	127	0.0	0.4	10.526	B
C-ABD	0	0	444	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	323	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	935	234			935				
D-ABC	153	38	449	0.341	152	0.4	0.5	12.127	B
C-ABD	0	0	418	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	291	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	128	32			128				
A-C	1145	286			1145				
D-ABC	187	47	423	0.443	186	0.5	0.8	15.134	C
C-ABD	0	0	383	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	291	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	128	32			128				
A-C	1145	286			1145				
D-ABC	187	47	423	0.443	187	0.8	0.8	15.262	C
C-ABD	0	0	383	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	323	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	935	234			935				
D-ABC	153	38	449	0.341	154	0.8	0.5	12.257	B
C-ABD	0	0	418	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	347	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	88	22			88				

A-C	783	196			783				
D-ABC	128	32	467	0.274	129	0.5	0.4	10.651	B
C-ABD	0	0	444	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2028 + Com Dev + Dev , Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2028 + Com Dev + Dev	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	1103	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	129	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	84	1019	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	129	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					77	116
A-C					935	1403
D-ABC	0.33	12.51	0.5	B	118	177
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	352	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	63	16			63				
A-C	767	192			767				
D-ABC	97	24	472	0.206	96	0.0	0.3	9.559	A
C-ABD	0	0	450	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	329	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	75	19			75				
A-C	916	229			916				
D-ABC	116	29	454	0.255	115	0.3	0.3	10.627	B
C-ABD	0	0	425	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	298	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	92	23			92				
A-C	1122	281			1122				
D-ABC	142	35	429	0.330	141	0.3	0.5	12.466	B
C-ABD	0	0	392	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	298	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	92	23			92				
A-C	1122	281			1122				
D-ABC	142	35	429	0.330	142	0.5	0.5	12.515	B
C-ABD	0	0	392	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	329	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	75	19			75				
A-C	916	229			916				
D-ABC	116	29	454	0.255	116	0.5	0.3	10.686	B
C-ABD	0	0	425	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	352	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	63	16			63				

A-C	767	192			767				
D-ABC	97	24	472	0.206	97	0.3	0.3	9.628	A
C-ABD	0	0	450	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	One-way from A to C		1.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48		ONE HOUR	✓	1133	100.000
B - Marshfield Road		ONE HOUR	✓	0	100.000
C - A48		ONE HOUR	✓	0	100.000
D - Central Reservation		ONE HOUR	✓	157	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	116	1016	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	157	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A48	B - Marshfield Road	C - A48	D - Central Reservation
From	A - A48	0	0	0	0
	B - Marshfield Road	0	0	0	0
	C - A48	0	0	0	0
	D - Central Reservation	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.00	0.00	0.0	A	0	0
A-B					107	160
A-C					932	1399
D-ABC	0.41	14.23	0.7	B	144	216
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					0	0

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	350	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	88	22			88				
A-C	765	191			765				
D-ABC	118	30	469	0.252	117	0.0	0.3	10.185	B
C-ABD	0	0	446	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	327	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	914	228			914				
D-ABC	141	35	451	0.313	141	0.3	0.4	11.587	B
C-ABD	0	0	421	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	295	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	128	32			128				
A-C	1119	280			1119				
D-ABC	173	43	426	0.406	172	0.4	0.7	14.129	B
C-ABD	0	0	387	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	295	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	128	32			128				
A-C	1119	280			1119				
D-ABC	173	43	426	0.406	173	0.7	0.7	14.228	B
C-ABD	0	0	387	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	327	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	914	228			914				
D-ABC	141	35	451	0.313	142	0.7	0.5	11.685	B
C-ABD	0	0	421	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	0	0	350	0.000	0	0.0	0.0	0.000	A
A-BCD	0	0	574	0.000	0	0.0	0.0	0.000	A
A-B	88	22			88				

A-C	765	191			765				
D-ABC	118	30	469	0.252	119	0.5	0.3	10.288	B
C-ABD	0	0	446	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	0	0			0				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 15_Heol Las_St Mellons Road.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:48:22

»2018 Base, Weekday AM Base
»2018 Base, Weekday PM Peak
»2023 + Com Dev , Weekday AM Base
»2023 + Com Dev , Weekday PM Peak
»2023 + Com Dev + Dev , Weekday AM Base
»2023 + Com Dev + Dev , Weekday PM Peak
»2028 + Com Dev , Weekday AM Base
»2028 + Com Dev , Weekday PM Peak
»2028 + Com Dev + Dev , Weekday AM Base
»2028 + Com Dev + Dev , Weekday PM Peak

Summary of junction performance

	Weekday AM Base				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-AC	0.2	8.06	0.19	A	0.2	8.06	0.17	A
Stream C-AB	0.0	5.18	0.00	A	0.0	5.41	0.00	A
	2023 + Com Dev							
Stream B-AC	0.2	8.13	0.20	A	0.2	8.12	0.17	A
Stream C-AB	0.0	5.19	0.00	A	0.0	5.42	0.00	A
	2023 + Com Dev + Dev							
Stream B-AC	0.3	8.29	0.21	A	0.2	8.17	0.18	A
Stream C-AB	0.0	5.19	0.00	A	0.0	5.43	0.00	A
	2028 + Com Dev							
Stream B-AC	0.2	8.17	0.20	A	0.2	8.17	0.18	A
Stream C-AB	0.0	5.19	0.00	A	0.0	5.42	0.00	A
	2028 + Com Dev + Dev							
Stream B-AC	0.3	8.44	0.23	A	0.2	8.17	0.18	A
Stream C-AB	0.0	5.19	0.00	A	0.0	5.42	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	14/11/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Urszula.Suplicka
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Base	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 + Com Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 + Com Dev + Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 + Com Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 + Com Dev + Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Base

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		3.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	St Mellons Rd		Major
B	Heol Las		Minor
C	Heol Las		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Heol Las	4.65			250.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Heol Las	One lane	3.10	250	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
15	B-A	574	0.111	0.280	0.176	0.400
15	B-C	643	0.104	0.264	-	-
15	C-B	719	0.295	0.295	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Base	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	106	100.000
B - Heol Las		✓	96	100.000
C - Heol Las		✓	21	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	79	28
	B - Heol Las	95	0	1
	C - Heol Las	19	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.19	8.06	0.2	A
C-AB	0.00	5.18	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	559	0.129	71	0.1	7.371	A
C-AB	2	704	0.002	2	0.0	5.125	A

C-A	14			14			
A-B	59			59			
A-C	21			21			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	556	0.154	86	0.2	7.652	A
C-AB	2	701	0.003	2	0.0	5.148	A
C-A	17			17			
A-B	71			71			
A-C	25			25			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	552	0.191	105	0.2	8.050	A
C-AB	2	697	0.003	2	0.0	5.180	A
C-A	21			21			
A-B	87			87			
A-C	30			30			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	552	0.191	105	0.2	8.057	A
C-AB	2	697	0.003	2	0.0	5.182	A
C-A	21			21			
A-B	87			87			
A-C	30			30			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	556	0.154	86	0.2	7.661	A
C-AB	2	701	0.003	2	0.0	5.150	A
C-A	17			17			
A-B	71			71			
A-C	25			25			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	559	0.129	72	0.1	7.396	A
C-AB	2	704	0.002	2	0.0	5.127	A
C-A	14			14			
A-B	59			59			
A-C	21			21			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		1.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	228	100.000
B - Heol Las		✓	82	100.000
C - Heol Las		✓	36	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	**B - Heol Las**	**C - Heol Las**
From	**A - St Mellons Rd**	0	208	20
	B - Heol Las	80	0	2
	C - Heol Las	34	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	**B - Heol Las**	**C - Heol Las**
From	**A - St Mellons Rd**	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.17	8.06	0.2	A
C-AB	0.00	5.41	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	549	0.112	61	0.1	7.371	A
C-AB	2	684	0.002	2	0.0	5.274	A
C-A	25			25			
A-B	157			157			
A-C	15			15			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	544	0.135	73	0.2	7.651	A
C-AB	2	677	0.003	2	0.0	5.328	A
C-A	30			30			
A-B	187			187			
A-C	18			18			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	536	0.167	90	0.2	8.053	A
C-AB	2	668	0.003	2	0.0	5.403	A
C-A	37			37			
A-B	229			229			
A-C	22			22			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	536	0.167	90	0.2	8.059	A
C-AB	2	668	0.003	2	0.0	5.406	A
C-A	37			37			
A-B	229			229			
A-C	22			22			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	544	0.135	74	0.2	7.662	A

C-AB	2	677	0.003	2	0.0	5.330	A
C-A	30			30			
A-B	187			187			
A-C	18			18			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	549	0.112	62	0.1	7.389	A
C-AB	2	684	0.002	2	0.0	5.276	A
C-A	25			25			
A-B	157			157			
A-C	15			15			

2023 + Com Dev , Weekday AM Base

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		3.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 + Com Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	109	100.000
B - Heol Las		✓	98	100.000
C - Heol Las		✓	21	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	81	28
	B - Heol Las	97	0	1
	C - Heol Las	19	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	8.13	0.2	A
C-AB	0.00	5.19	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	559	0.133	73	0.2	7.410	A
C-AB	2	703	0.002	2	0.0	5.128	A
C-A	15			15			
A-B	61			61			
A-C	21			21			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	556	0.159	88	0.2	7.701	A
C-AB	2	700	0.003	2	0.0	5.152	A
C-A	17			17			
A-B	73			73			
A-C	25			25			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	551	0.196	108	0.2	8.117	A
C-AB	2	696	0.003	2	0.0	5.185	A
C-A	21			21			
A-B	89			89			
A-C	31			31			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	551	0.196	108	0.2	8.125	A
C-AB	2	696	0.003	2	0.0	5.187	A
C-A	21			21			
A-B	89			89			
A-C	31			31			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	556	0.159	89	0.2	7.714	A
C-AB	2	700	0.003	2	0.0	5.154	A
C-A	17			17			
A-B	73			73			
A-C	25			25			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	559	0.133	74	0.2	7.435	A
C-AB	2	703	0.002	2	0.0	5.128	A
C-A	15			15			
A-B	61			61			
A-C	21			21			

2023 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		1.95	A

Junction Network Options

Driving side	Lighting

Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	234	100.000
B - Heol Las		✓	84	100.000
C - Heol Las		✓	37	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	213	21
	B - Heol Las	82	0	2
	C - Heol Las	35	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.17	8.12	0.2	A
C-AB	0.00	5.42	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	548	0.115	63	0.1	7.407	A
C-AB	2	683	0.002	2	0.0	5.281	A
C-A	26			26			
A-B	161			161			
A-C	16			16			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	543	0.139	75	0.2	7.697	A
C-AB	2	676	0.003	2	0.0	5.337	A
C-A	31			31			
A-B	192			192			
A-C	19			19			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	535	0.172	92	0.2	8.115	A
C-AB	2	667	0.004	2	0.0	5.415	A
C-A	38			38			
A-B	235			235			
A-C	23			23			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	535	0.172	92	0.2	8.122	A
C-AB	2	667	0.004	2	0.0	5.417	A
C-A	38			38			
A-B	235			235			
A-C	23			23			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	543	0.139	75	0.2	7.708	A
C-AB	2	676	0.003	2	0.0	5.337	A
C-A	31			31			
A-B	192			192			
A-C	19			19			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	548	0.115	63	0.1	7.428	A
C-AB	2	683	0.002	2	0.0	5.283	A
C-A	26			26			
A-B	161			161			

A-C	16			16			

2023 + Com Dev + Dev , Weekday AM Base

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		3.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 + Com Dev + Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	111	100.000
B - Heol Las		✓	106	100.000
C - Heol Las		✓	22	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	**B - Heol Las**	**C - Heol Las**
From	**A - St Mellons Rd**	0	82	28
	B - Heol Las	105	0	1
	C - Heol Las	20	2	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - St Mellons Rd	B - Heol Las	C - Heol Las
A - St Mellons Rd	0	0	0
B - Heol Las	0	0	0
C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.21	8.29	0.3	A
C-AB	0.00	5.19	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	558	0.143	79	0.2	7.503	A
C-AB	2	703	0.002	2	0.0	5.129	A
C-A	15			15			
A-B	62			62			
A-C	21			21			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	555	0.172	95	0.2	7.821	A
C-AB	2	700	0.003	2	0.0	5.153	A
C-A	18			18			
A-B	74			74			
A-C	26			26			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	117	551	0.212	116	0.3	8.281	A
C-AB	2	696	0.003	2	0.0	5.186	A
C-A	22			22			
A-B	90			90			
A-C	31			31			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	117	551	0.212	117	0.3	8.290	A
C-AB	2	696	0.003	2	0.0	5.188	A
C-A	22			22			
A-B	90			90			
A-C	31			31			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	555	0.172	96	0.2	7.835	A
C-AB	2	700	0.003	2	0.0	5.155	A
C-A	18			18			
A-B	74			74			
A-C	26			26			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	558	0.143	80	0.2	7.529	A
C-AB	2	703	0.002	2	0.0	5.131	A
C-A	15			15			
A-B	62			62			
A-C	21			21			

2023 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		1.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	239	100.000
B - Heol Las		✓	85	100.000
C - Heol Las		✓	37	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	218	21
	B - Heol Las	83	0	2
	C - Heol Las	35	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	8.17	0.2	A
C-AB	0.00	5.43	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	548	0.117	64	0.1	7.433	A
C-AB	2	682	0.002	2	0.0	5.290	A

C-A	26			26			
A-B	164			164			
A-C	16			16			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	77	542	0.142	77	0.2	7.732	A
C-AB	2	675	0.003	2	0.0	5.347	A
C-A	31			31			
A-B	196			196			
A-C	19			19			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	535	0.176	94	0.2	8.162	A
C-AB	2	666	0.004	2	0.0	5.427	A
C-A	38			38			
A-B	240			240			
A-C	23			23			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	535	0.176	94	0.2	8.169	A
C-AB	2	666	0.004	2	0.0	5.427	A
C-A	38			38			
A-B	240			240			
A-C	23			23			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	77	542	0.142	77	0.2	7.741	A
C-AB	2	675	0.003	2	0.0	5.347	A
C-A	31			31			
A-B	196			196			
A-C	19			19			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	548	0.117	64	0.1	7.455	A
C-AB	2	682	0.002	2	0.0	5.292	A
C-A	26			26			
A-B	164			164			
A-C	16			16			

2028 + Com Dev , Weekday AM Base

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		3.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 + Com Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	111	100.000
B - Heol Las		✓	100	100.000
C - Heol Las		✓	22	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	**B - Heol Las**	**C - Heol Las**
From	**A - St Mellons Rd**	0	83	29
	B - Heol Las	99	0	1
	C - Heol Las	20	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	**B - Heol Las**	**C - Heol Las**
From	**A - St Mellons Rd**	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	8.17	0.2	A
C-AB	0.00	5.19	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	558	0.135	75	0.2	7.437	A
C-AB	2	703	0.002	2	0.0	5.131	A
C-A	15			15			
A-B	62			62			
A-C	22			22			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	555	0.162	90	0.2	7.735	A
C-AB	2	700	0.003	2	0.0	5.155	A
C-A	18			18			
A-B	74			74			
A-C	26			26			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	551	0.200	110	0.2	8.164	A
C-AB	2	696	0.003	2	0.0	5.189	A
C-A	22			22			
A-B	91			91			
A-C	32			32			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	551	0.200	110	0.2	8.172	A
C-AB	2	696	0.003	2	0.0	5.191	A
C-A	22			22			
A-B	91			91			
A-C	32			32			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	555	0.162	90	0.2	7.749	A

C-AB	2	700	0.003	2	0.0	5.157	A
C-A	18			18			
A-B	74			74			
A-C	26			26			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	558	0.135	76	0.2	7.462	A
C-AB	2	703	0.002	2	0.0	5.131	A
C-A	15			15			
A-B	62			62			
A-C	22			22			

2028 + Com Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		1.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 + Com Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	239	100.000
B - Heol Las		✓	85	100.000
C - Heol Las		✓	37	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	217	21
	B - Heol Las	83	0	2
	C - Heol Las	35	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	8.17	0.2	A
C-AB	0.00	5.42	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	548	0.117	64	0.1	7.431	A
C-AB	2	682	0.002	2	0.0	5.286	A
C-A	26			26			
A-B	164			164			
A-C	16			16			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	77	542	0.141	77	0.2	7.729	A
C-AB	2	676	0.003	2	0.0	5.343	A
C-A	32			32			
A-B	195			195			
A-C	19			19			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	535	0.176	94	0.2	8.159	A
C-AB	2	666	0.004	2	0.0	5.422	A
C-A	39			39			
A-B	239			239			
A-C	23			23			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	535	0.176	94	0.2	8.165	A
C-AB	2	666	0.004	2	0.0	5.424	A
C-A	39			39			
A-B	239			239			
A-C	23			23			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	77	542	0.141	77	0.2	7.738	A
C-AB	2	676	0.003	2	0.0	5.345	A
C-A	32			32			
A-B	195			195			
A-C	19			19			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	548	0.117	64	0.1	7.450	A
C-AB	2	682	0.002	2	0.0	5.286	A
C-A	26			26			
A-B	164			164			
A-C	16			16			

2028 + Com Dev + Dev , Weekday AM Base

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		3.90	A

Junction Network Options

Driving side	Lighting

Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 + Com Dev + Dev	Weekday AM Base	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	112	100.000
B - Heol Las		✓	113	100.000
C - Heol Las		✓	22	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	83	29
	B - Heol Las	112	0	1
	C - Heol Las	20	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - St Mellons Rd	B - Heol Las	C - Heol Las
From	A - St Mellons Rd	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	8.44	0.3	A
C-AB	0.00	5.19	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	558	0.152	84	0.2	7.583	A
C-AB	2	703	0.002	2	0.0	5.130	A
C-A	15			15			
A-B	62			62			
A-C	22			22			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	101	555	0.182	101	0.2	7.925	A
C-AB	2	700	0.003	2	0.0	5.154	A
C-A	18			18			
A-B	74			74			
A-C	26			26			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	551	0.225	124	0.3	8.428	A
C-AB	2	696	0.003	2	0.0	5.187	A
C-A	22			22			
A-B	91			91			
A-C	32			32			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	551	0.225	124	0.3	8.438	A
C-AB	2	696	0.003	2	0.0	5.187	A
C-A	22			22			
A-B	91			91			
A-C	32			32			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	101	555	0.182	102	0.2	7.942	A
C-AB	2	700	0.003	2	0.0	5.154	A
C-A	18			18			
A-B	74			74			
A-C	26			26			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	558	0.152	85	0.2	7.610	A
C-AB	2	703	0.002	2	0.0	5.130	A
C-A	15			15			
A-B	62			62			

A-C	22			22			

2028 + Com Dev + Dev , Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Heol Las - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Heol Las/St Mellons Road	T-Junction	Two-way		1.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 + Com Dev + Dev	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - St Mellons Rd		✓	237	100.000
B - Heol Las		✓	86	100.000
C - Heol Las		✓	37	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - St Mellons Rd	**B - Heol Las**	**C - Heol Las**
From	**A - St Mellons Rd**	0	215	22
	B - Heol Las	84	0	2
	C - Heol Las	35	2	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - St Mellons Rd	B - Heol Las	C - Heol Las
	A - St Mellons Rd	0	0	0
	B - Heol Las	0	0	0
	C - Heol Las	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	8.17	0.2	A
C-AB	0.00	5.42	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	65	548	0.118	64	0.1	7.437	A
C-AB	2	683	0.002	2	0.0	5.283	A
C-A	27			27			
A-B	162			162			
A-C	16			16			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	77	542	0.142	77	0.2	7.736	A
C-AB	2	676	0.003	2	0.0	5.338	A
C-A	32			32			
A-B	193			193			
A-C	20			20			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	535	0.177	94	0.2	8.168	A
C-AB	2	667	0.004	2	0.0	5.417	A
C-A	39			39			
A-B	237			237			
A-C	24			24			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	535	0.177	95	0.2	8.174	A
C-AB	2	667	0.004	2	0.0	5.419	A
C-A	39			39			
A-B	237			237			
A-C	24			24			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	77	542	0.142	77	0.2	7.745	A
C-AB	2	676	0.003	2	0.0	5.339	A
C-A	32			32			
A-B	193			193			
A-C	20			20			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	65	548	0.118	65	0.1	7.458	A
C-AB	2	683	0.002	2	0.0	5.285	A
C-A	27			27			
A-B	162			162			
A-C	16			16			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 18_B4487_Newport_Road_Tyr_Winch_Road.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:51:01

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 with Committed Development, Weekday AM Peak
»2023 with Committed Development, Weekday PM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak
»2028 with Committed Development, Weekday AM Peak
»2028 with Committed Development, Weekday PM Peak
»2028 with Committed and Proposed Development, Weekday AM Peak
»2028 with Committed and Proposed Development, Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-C	0.2	8.08	0.17	A	0.1	8.68	0.09	A
Stream B-A	0.3	17.93	0.25	C	0.5	25.26	0.32	D
Stream C-AB	0.1	6.70	0.10	A	0.2	7.80	0.17	A
	2023 with Committed Development							
Stream B-C	0.2	8.57	0.18	A	0.1	9.31	0.10	A
Stream B-A	0.4	20.78	0.29	C	0.6	30.44	0.37	D
Stream C-AB	0.1	6.93	0.11	A	0.2	8.13	0.18	A
	2023 with Committed Development and Proposed Development (Phase 1)							
Stream B-C	0.2	9.03	0.19	A	0.1	9.59	0.11	A
Stream B-A	0.4	23.10	0.31	C	0.6	33.94	0.40	D
Stream C-AB	0.1	7.16	0.11	A	0.2	8.22	0.18	A
	2028 with Committed Development							
Stream B-C	0.2	8.76	0.19	A	0.1	9.59	0.11	A
Stream B-A	0.4	21.87	0.30	C	0.6	32.81	0.39	D
Stream C-AB	0.1	7.01	0.11	A	0.2	8.26	0.18	A
	2028 with Committed and Proposed Development							

Stream B-C	0.3	10.50	0.23	B	0.1	9.70	0.09	A
Stream B-A	0.4	23.23	0.31	C	0.7	36.13	0.41	E
Stream C-AB	0.1	6.90	0.07	A	0.2	8.26	0.19	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	11/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Newport Road		Major
B	Tyr Winch Road		Minor
C	Newport Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Newport Road	7.05		✓	3.54	250.0	✓	4.73

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Tyr Winch Road	One lane plus flare	10.00	6.88	4.06	2.44	2.27	✓	1.00	159	90

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	632	0.110	0.278	0.175	0.397
1	B-C	781	0.114	0.289	-	-
1	C-B	824	0.305	0.305	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	669	100.000
B - Tyr Winch Road		✓	143	100.000
C - Newport Road		✓	815	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	69	599
	B - Tyr Winch Road	61	0	82
	C - Newport Road	758	56	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.17	8.08	0.2	A
B-A	0.25	17.93	0.3	C
C-AB	0.10	6.70	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	624	0.099	61	0.1	6.393	A
B-A	46	384	0.120	46	0.1	10.605	B
C-AB	42	670	0.063	42	0.1	5.728	A
C-A	571			571			
A-B	52			52			
A-C	451			451			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	590	0.125	73	0.1	6.973	A
B-A	55	336	0.164	55	0.2	12.814	B
C-AB	51	641	0.079	51	0.1	6.101	A
C-A	682			682			
A-B	62			62			
A-C	539			539			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	536	0.168	90	0.2	8.064	A
B-A	67	268	0.251	67	0.3	17.838	C
C-AB	62	599	0.103	62	0.1	6.695	A
C-A	835			835			
A-B	76			76			
A-C	660			660			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	535	0.168	90	0.2	8.084	A
B-A	67	268	0.251	67	0.3	17.926	C
C-AB	62	599	0.103	62	0.1	6.697	A
C-A	835			835			
A-B	76			76			
A-C	660			660			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	589	0.125	74	0.1	6.993	A
B-A	55	336	0.164	56	0.2	12.875	B
C-AB	51	641	0.079	51	0.1	6.104	A
C-A	682			682			
A-B	62			62			
A-C	539			539			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	623	0.099	62	0.1	6.412	A
B-A	46	384	0.120	46	0.1	10.666	B
C-AB	42	670	0.063	42	0.1	5.734	A
C-A	571			571			
A-B	52			52			
A-C	451			451			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	807	100.000
B - Tyr Winch Road		✓	101	100.000
C - Newport Road		✓	870	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	111	696
	B - Tyr Winch Road	61	0	40
	C - Newport Road	787	83	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.09	8.68	0.1	A
B-A	0.32	25.26	0.5	D
C-AB	0.17	7.80	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	565	0.053	30	0.1	6.720	A
B-A	46	337	0.137	45	0.2	12.335	B
C-AB	63	639	0.098	62	0.1	6.244	A
C-A	592			592			
A-B	84			84			
A-C	524			524			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	526	0.068	35	0.1	7.342	A
B-A	55	283	0.194	55	0.2	15.714	C
C-AB	75	603	0.124	75	0.1	6.818	A
C-A	707			707			

A-B	100			100			
A-C	626			626			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	460	0.095	43	0.1	8.647	A
B-A	67	210	0.321	67	0.5	24.969	C
C-AB	92	553	0.166	92	0.2	7.795	A
C-A	866			866			
A-B	123			123			
A-C	766			766			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	458	0.095	43	0.1	8.682	A
B-A	67	210	0.321	67	0.5	25.259	D
C-AB	92	553	0.166	92	0.2	7.802	A
C-A	866			866			
A-B	123			123			
A-C	766			766			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	524	0.068	36	0.1	7.368	A
B-A	55	283	0.194	56	0.2	15.877	C
C-AB	75	603	0.124	75	0.1	6.829	A
C-A	707			707			
A-B	100			100			
A-C	626			626			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	564	0.053	30	0.1	6.742	A
B-A	46	337	0.137	46	0.2	12.421	B
C-AB	63	639	0.098	63	0.1	6.254	A
C-A	592			592			
A-B	84			84			
A-C	524			524			

2023 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	717	100.000
B - Tyr Winch Road		✓	147	100.000
C - Newport Road		✓	870	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	71	646
	B - Tyr Winch Road	63	0	84
	C - Newport Road	812	58	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.18	8.57	0.2	A

B-A	0.29	20.78	0.4	C
C-AB	0.11	6.93	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	612	0.104	63	0.1	6.546	A
B-A	47	366	0.129	47	0.1	11.242	B
C-AB	44	659	0.066	43	0.1	5.843	A
C-A	611			611			
A-B	54			54			
A-C	486			486			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	76	575	0.132	76	0.2	7.209	A
B-A	56	314	0.180	56	0.2	13.922	B
C-AB	52	627	0.083	52	0.1	6.258	A
C-A	730			730			
A-B	64			64			
A-C	581			581			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	93	514	0.181	93	0.2	8.537	A
B-A	69	242	0.286	68	0.4	20.633	C
C-AB	64	583	0.109	64	0.1	6.928	A
C-A	894			894			
A-B	79			79			
A-C	711			711			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	93	513	0.181	93	0.2	8.566	A
B-A	69	242	0.285	69	0.4	20.782	C
C-AB	64	583	0.109	64	0.1	6.930	A
C-A	894			894			
A-B	79			79			
A-C	711			711			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	76	574	0.132	76	0.2	7.239	A
B-A	56	315	0.180	57	0.2	14.018	B

C-AB	52	627	0.083	52	0.1	6.261	A
C-A	730			730			
A-B	64			64			
A-C	581			581			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	612	0.104	64	0.1	6.570	A
B-A	47	366	0.129	48	0.2	11.299	B
C-AB	44	659	0.066	44	0.1	5.851	A
C-A	611			611			
A-B	54			54			
A-C	486			486			

2023 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	856	100.000
B - Tyr Winch Road		✓	103	100.000
C - Newport Road		✓	913	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
	A - Newport Road	0	114	742
	B - Tyr Winch Road	63	0	41
	C - Newport Road	828	86	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.10	9.31	0.1	A
B-A	0.37	30.44	0.6	D
C-AB	0.18	8.13	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	554	0.055	30	0.1	6.872	A
B-A	47	321	0.147	47	0.2	13.073	B
C-AB	64	627	0.103	64	0.1	6.384	A
C-A	623			623			
A-B	86			86			
A-C	558			558			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	511	0.071	36	0.1	7.583	A
B-A	56	265	0.213	56	0.3	17.193	C
C-AB	77	589	0.130	77	0.1	7.022	A

C-A	744			744			
A-B	103			103			
A-C	667			667			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	434	0.103	44	0.1	9.249	A
B-A	69	187	0.369	68	0.6	29.894	D
C-AB	94	537	0.175	94	0.2	8.125	A
C-A	912			912			
A-B	126			126			
A-C	817			817			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	431	0.103	45	0.1	9.306	A
B-A	69	187	0.369	69	0.6	30.440	D
C-AB	94	537	0.175	94	0.2	8.133	A
C-A	912			912			
A-B	126			126			
A-C	817			817			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	509	0.072	37	0.1	7.623	A
B-A	56	265	0.213	58	0.3	17.445	C
C-AB	77	589	0.130	77	0.2	7.031	A
C-A	744			744			
A-B	103			103			
A-C	667			667			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	553	0.055	31	0.1	6.895	A
B-A	47	321	0.147	48	0.2	13.181	B
C-AB	64	627	0.103	65	0.1	6.400	A
C-A	623			623			
A-B	86			86			
A-C	558			558			

2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	766	100.000
B - Tyr Winch Road		✓	149	100.000
C - Newport Road		✓	879	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	71	694
	B - Tyr Winch Road	63	0	86
	C - Newport Road	821	58	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.19	9.03	0.2	A
B-A	0.31	23.10	0.4	C
C-AB	0.11	7.16	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	603	0.108	65	0.1	6.686	A
B-A	47	354	0.134	47	0.2	11.684	B
C-AB	44	648	0.067	43	0.1	5.951	A
C-A	618			618			
A-B	54			54			
A-C	523			523			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	562	0.138	78	0.2	7.427	A
B-A	56	300	0.188	56	0.2	14.736	B
C-AB	52	614	0.085	52	0.1	6.407	A
C-A	738			738			
A-B	64			64			
A-C	624			624			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	495	0.192	95	0.2	8.987	A
B-A	69	225	0.308	68	0.4	22.883	C
C-AB	64	567	0.113	64	0.1	7.153	A
C-A	904			904			
A-B	79			79			
A-C	765			765			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	494	0.193	95	0.2	9.026	A
B-A	69	225	0.308	69	0.4	23.097	C
C-AB	64	567	0.113	64	0.1	7.156	A
C-A	904			904			
A-B	79			79			
A-C	765			765			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	561	0.139	78	0.2	7.462	A
B-A	56	300	0.188	57	0.2	14.858	B
C-AB	52	614	0.085	52	0.1	6.413	A
C-A	738			738			
A-B	64			64			
A-C	624			624			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	602	0.108	65	0.1	6.712	A
B-A	47	354	0.133	48	0.2	11.748	B
C-AB	44	648	0.067	44	0.1	5.960	A
C-A	618			618			
A-B	54			54			
A-C	523			523			

2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	867	100.000
B - Tyr Winch Road		✓	104	100.000
C - Newport Road		✓	961	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	114	753
	B - Tyr Winch Road	63	0	41
	C - Newport Road	875	86	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.11	9.59	0.1	A
B-A	0.40	33.94	0.6	D
C-AB	0.18	8.22	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	551	0.056	30	0.1	6.909	A
B-A	47	313	0.151	47	0.2	13.482	B
C-AB	65	625	0.104	64	0.1	6.419	A
C-A	658			658			
A-B	86			86			

A-C	567			567			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	37	507	0.072	37	0.1	7.651	A
B-A	56	255	0.221	56	0.3	18.052	C
C-AB	78	586	0.132	77	0.2	7.072	A
C-A	786			786			
A-B	103			103			
A-C	677			677			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	423	0.106	45	0.1	9.508	A
B-A	69	175	0.395	68	0.6	33.172	D
C-AB	95	533	0.178	95	0.2	8.205	A
C-A	963			963			
A-B	126			126			
A-C	829			829			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	420	0.107	45	0.1	9.590	A
B-A	69	175	0.395	69	0.6	33.941	D
C-AB	95	533	0.178	95	0.2	8.216	A
C-A	963			963			
A-B	126			126			
A-C	829			829			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	37	505	0.073	37	0.1	7.698	A
B-A	56	255	0.221	58	0.3	18.369	C
C-AB	78	586	0.132	78	0.2	7.082	A
C-A	786			786			
A-B	103			103			
A-C	677			677			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	550	0.056	31	0.1	6.936	A
B-A	47	313	0.151	48	0.2	13.601	B
C-AB	65	625	0.104	65	0.1	6.435	A
C-A	658			658			
A-B	86			86			
A-C	567			567			

2028 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	730	100.000
B - Tyr Winch Road		✓	150	100.000
C - Newport Road		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	73	658
	B - Tyr Winch Road	64	0	86
	C - Newport Road	827	59	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Newport Road	B - Tyr Winch Road	C - Newport Road
	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.19	8.76	0.2	A
B-A	0.30	21.87	0.4	C
C-AB	0.11	7.01	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	609	0.106	64	0.1	6.600	A
B-A	48	361	0.133	48	0.2	11.448	B
C-AB	44	656	0.068	44	0.1	5.880	A
C-A	623			623			
A-B	55			55			
A-C	495			495			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	570	0.135	77	0.2	7.295	A
B-A	57	309	0.186	57	0.2	14.305	B
C-AB	53	624	0.085	53	0.1	6.309	A
C-A	744			744			
A-B	65			65			
A-C	591			591			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	507	0.187	94	0.2	8.721	A
B-A	70	235	0.300	70	0.4	21.686	C
C-AB	65	579	0.112	65	0.1	7.004	A
C-A	911			911			
A-B	80			80			
A-C	724			724			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	506	0.187	95	0.2	8.757	A
B-A	70	235	0.300	70	0.4	21.866	C
C-AB	65	579	0.112	65	0.1	7.007	A
C-A	911			911			
A-B	80			80			
A-C	724			724			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	569	0.136	78	0.2	7.324	A
B-A	57	309	0.186	58	0.2	14.413	B
C-AB	53	624	0.085	53	0.1	6.314	A
C-A	744			744			
A-B	65			65			
A-C	591			591			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	608	0.106	65	0.1	6.626	A
B-A	48	361	0.133	48	0.2	11.512	B
C-AB	44	656	0.068	45	0.1	5.886	A
C-A	623			623			
A-B	55			55			
A-C	495			495			

2028 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	871	100.000
B - Tyr Winch Road		✓	105	100.000
C - Newport Road		✓	929	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	116	754
	B - Tyr Winch Road	64	0	41
	C - Newport Road	842	87	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.11	9.59	0.1	A
B-A	0.39	32.81	0.6	D
C-AB	0.18	8.26	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	550	0.056	31	0.1	6.927	A
B-A	48	316	0.152	47	0.2	13.353	B
C-AB	66	624	0.105	65	0.1	6.436	A
C-A	634			634			
A-B	88			88			
A-C	568			568			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	37	506	0.073	37	0.1	7.673	A
B-A	57	259	0.222	57	0.3	17.784	C
C-AB	78	585	0.134	78	0.2	7.097	A
C-A	757			757			
A-B	105			105			
A-C	678			678			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	424	0.107	45	0.1	9.511	A
B-A	70	180	0.391	69	0.6	32.111	D
C-AB	96	532	0.180	96	0.2	8.247	A
C-A	927			927			
A-B	128			128			
A-C	831			831			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	421	0.108	45	0.1	9.588	A
B-A	70	180	0.391	70	0.6	32.814	D
C-AB	96	532	0.180	96	0.2	8.256	A
C-A	927			927			
A-B	128			128			
A-C	831			831			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	37	504	0.074	37	0.1	7.718	A
B-A	57	259	0.222	59	0.3	18.086	C
C-AB	78	585	0.134	79	0.2	7.109	A
C-A	757			757			
A-B	105			105			
A-C	678			678			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	549	0.057	31	0.1	6.951	A
B-A	48	316	0.152	49	0.2	13.471	B
C-AB	66	624	0.105	66	0.1	6.449	A
C-A	634			634			
A-B	88			88			

A-C	568			568			

2028 with Committed and Proposed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	792	100.000
B - Tyr Winch Road		✓	158	100.000
C - Newport Road		✓	856	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	**B - Tyr Winch Road**	**C - Newport Road**
From	**A - Newport Road**	0	73	719
	B - Tyr Winch Road	64	0	94
	C - Newport Road	822	33	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Newport Road	B - Tyr Winch Road	C - Newport Road
A - Newport Road	0	0	0
B - Tyr Winch Road	0	0	0
C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.23	10.50	0.3	B
B-A	0.31	23.23	0.4	C
C-AB	0.07	6.90	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	549	0.130	71	0.1	7.514	A
B-A	48	354	0.136	48	0.2	11.725	B
C-AB	25	642	0.039	25	0.0	5.832	A
C-A	619			619			
A-B	55			55			
A-C	541			541			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	511	0.166	85	0.2	8.445	A
B-A	57	300	0.191	57	0.2	14.787	B
C-AB	30	607	0.049	30	0.1	6.240	A
C-A	739			739			
A-B	65			65			
A-C	646			646			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	104	448	0.232	104	0.3	10.451	B
B-A	70	225	0.313	70	0.4	23.003	C
C-AB	37	558	0.066	37	0.1	6.904	A
C-A	905			905			

A-B	80			80			
A-C	792			792			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	104	447	0.233	104	0.3	10.505	B
B-A	70	225	0.313	70	0.4	23.228	C
C-AB	37	558	0.066	37	0.1	6.904	A
C-A	905			905			
A-B	80			80			
A-C	792			792			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	510	0.167	85	0.2	8.488	A
B-A	57	300	0.191	58	0.2	14.915	B
C-AB	30	607	0.049	30	0.1	6.244	A
C-A	739			739			
A-B	65			65			
A-C	646			646			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	548	0.130	71	0.2	7.551	A
B-A	48	354	0.136	48	0.2	11.792	B
C-AB	25	642	0.039	25	0.0	5.838	A
C-A	619			619			
A-B	55			55			
A-C	541			541			

2028 with Committed and Proposed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Newport Road		✓	862	100.000
B - Tyr Winch Road		✓	99	100.000
C - Newport Road		✓	1000	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	116	745
	B - Tyr Winch Road	64	0	35
	C - Newport Road	910	90	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Newport Road	B - Tyr Winch Road	C - Newport Road
From	A - Newport Road	0	0	0
	B - Tyr Winch Road	0	0	0
	C - Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.09	9.70	0.1	A
B-A	0.41	36.13	0.7	E
C-AB	0.19	8.26	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	545	0.049	26	0.1	6.939	A
B-A	48	310	0.155	47	0.2	13.661	B
C-AB	68	626	0.108	67	0.1	6.437	A
C-A	685			685			
A-B	88			88			
A-C	561			561			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	501	0.063	32	0.1	7.671	A
B-A	57	251	0.229	57	0.3	18.490	C
C-AB	81	588	0.138	81	0.2	7.099	A
C-A	818			818			
A-B	105			105			
A-C	670			670			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	413	0.094	39	0.1	9.613	A
B-A	70	170	0.415	69	0.7	35.183	E
C-AB	99	535	0.185	99	0.2	8.249	A
C-A	1002			1002			
A-B	128			128			
A-C	821			821			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	410	0.095	39	0.1	9.705	A
B-A	70	170	0.415	70	0.7	36.133	E
C-AB	99	535	0.185	99	0.2	8.258	A
C-A	1002			1002			
A-B	128			128			
A-C	821			821			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	498	0.064	32	0.1	7.720	A
B-A	57	251	0.229	59	0.3	18.858	C
C-AB	81	588	0.138	81	0.2	7.109	A
C-A	818			818			
A-B	105			105			
A-C	670			670			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	544	0.049	27	0.1	6.959	A
B-A	48	310	0.155	49	0.2	13.788	B
C-AB	68	626	0.108	68	0.1	6.451	A

C-A	685			685			
A-B	88			88			
A-C	561			561			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 20_A48_Newport_Road_Coal_Pit_Lane.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:53:47

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 with Committed Development, Weekday AM Peak
»2023 with Committed Development, Weekday PM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak
»2028 with Committed Development, Weekday AM Peak
»2028 with Committed Development, Weekday PM Peak
»2028 with Committed and Proposed Development, Weekday AM Peak
»2028 with Committed and Proposed Development, Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-AC	2.0	24.93	0.67	C	0.1	8.01	0.10	A
Stream C-AB	0.1	6.45	0.12	A	0.2	6.26	0.20	A
	2023 with Committed Development							
Stream B-AC	2.4	29.51	0.71	D	0.1	8.21	0.10	A
Stream C-AB	0.1	6.66	0.12	A	0.3	6.39	0.21	A
	2023 with Committed Development and Proposed Development (Phase 1)							
Stream B-AC	2.5	30.78	0.72	D	0.1	8.39	0.11	A
Stream C-AB	0.1	6.67	0.12	A	0.3	6.51	0.21	A
	2028 with Committed Development							
Stream B-AC	2.6	32.20	0.74	D	0.1	8.29	0.11	A
Stream C-AB	0.1	6.73	0.13	A	0.3	6.45	0.21	A
	2028 with Committed and Proposed Development							
Stream B-AC	2.8	34.27	0.75	D	0.1	8.55	0.11	A
Stream C-AB	0.1	6.65	0.12	A	0.3	6.69	0.22	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	04/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		2.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A48 Newport Road		Major
B	Coal Pit Lane		Minor
C	A48 Newport Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A48 Newport Road	17.45	✓	8.54	✓	5.00	163.0	✓	19.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Coal Pit Lane	One lane	3.80	27	29

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B

1	B-A	644	0.049	0.125	0.079	0.178
1	B-C	694	0.053	0.135	-	-
1	C-B	872	0.170	0.170	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	1292	100.000
B - Coal Pit Lane		ONE HOUR	✓	265	100.000
C - A48 Newport Road		ONE HOUR	✓	905	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	**B - Coal Pit Lane**	**C - A48 Newport Road**
From	**A - A48 Newport Road**	0	20	1272
	B - Coal Pit Lane	131	0	134
	C - A48 Newport Road	839	66	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48 Newport Road	**B - Coal Pit Lane**	**C - A48 Newport Road**
From	**A - A48 Newport Road**	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.67	24.93	2.0	C	243	365
C-AB	0.12	6.45	0.1	A	61	91

C-A					770	1155
A-B					19	28
A-C					1167	1750

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	199	50	510	0.391	197	0.0	0.6	11.393	B
C-AB	50	12	707	0.070	49	0.0	0.1	5.471	A
C-A	632	158			632				
A-B	15	4			15				
A-C	957	239			957				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	238	60	479	0.497	237	0.6	1.0	14.795	B
C-AB	59	15	675	0.088	59	0.1	0.1	5.846	A
C-A	754	189			754				
A-B	18	5			18				
A-C	1143	286			1143				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	292	73	435	0.670	288	1.0	1.9	23.871	C
C-AB	73	18	631	0.115	73	0.1	0.1	6.447	A
C-A	924	231			924				
A-B	22	6			22				
A-C	1400	350			1400				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	292	73	435	0.670	291	1.9	2.0	24.932	C
C-AB	73	18	631	0.115	73	0.1	0.1	6.450	A
C-A	924	231			924				
A-B	22	6			22				
A-C	1400	350			1400				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	238	60	479	0.497	242	2.0	1.0	15.429	C
C-AB	59	15	675	0.088	60	0.1	0.1	5.849	A
C-A	754	189			754				
A-B	18	5			18				
A-C	1143	286			1143				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	199	50	510	0.391	201	1.0	0.7	11.702	B
C-AB	50	12	707	0.070	50	0.1	0.1	5.479	A
C-A	632	158			632				
A-B	15	4			15				
A-C	957	239			957				

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		0.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	821	100.000
B - Coal Pit Lane		ONE HOUR	✓	45	100.000
C - A48 Newport Road		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	135	686
	B - Coal Pit Lane	21	0	24
	C - A48 Newport Road	1025	131	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.01	0.1	A	41	62
C-AB	0.20	6.26	0.2	A	120	180
C-A					941	1411
A-B					124	186
A-C					629	944

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	555	0.061	34	0.0	0.1	6.907	A
C-AB	99	25	767	0.128	98	0.0	0.1	5.374	A
C-A	772	193			772				
A-B	102	25			102				
A-C	516	129			516				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	531	0.076	40	0.1	0.1	7.332	A
C-AB	118	29	747	0.158	118	0.1	0.2	5.718	A
C-A	922	230			922				
A-B	121	30			121				

A-C	616	154			616				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	499	0.099	49	0.1	0.1	8.010	A
C-AB	144	36	719	0.201	144	0.2	0.2	6.258	A
C-A	1129	282			1129				
A-B	149	37			149				
A-C	755	189			755				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	499	0.099	50	0.1	0.1	8.014	A
C-AB	144	36	719	0.201	144	0.2	0.2	6.263	A
C-A	1129	282			1129				
A-B	149	37			149				
A-C	755	189			755				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	531	0.076	41	0.1	0.1	7.338	A
C-AB	118	29	747	0.158	118	0.2	0.2	5.724	A
C-A	922	230			922				
A-B	121	30			121				
A-C	616	154			616				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	555	0.061	34	0.1	0.1	6.918	A
C-AB	99	25	767	0.128	99	0.2	0.1	5.387	A
C-A	772	193			772				
A-B	102	25			102				
A-C	516	129			516				

2023 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		3.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	1374	100.000
B - Coal Pit Lane		ONE HOUR	✓	273	100.000
C - A48 Newport Road		ONE HOUR	✓	949	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	21	1353
	B - Coal Pit Lane	135	0	138
	C - A48 Newport Road	881	68	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)

B-AC	0.71	29.51	2.4	D	250	375
C-AB	0.12	6.66	0.1	A	62	94
C-A					808	1213
A-B					19	29
A-C					1241	1862

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	205	51	500	0.410	203	0.0	0.7	11.985	B
C-AB	51	13	697	0.074	51	0.0	0.1	5.572	A
C-A	663	166			663				
A-B	16	4			16				
A-C	1018	255			1018				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	245	61	467	0.525	244	0.7	1.1	15.988	C
C-AB	61	15	663	0.092	61	0.1	0.1	5.984	A
C-A	792	198			792				
A-B	19	5			19				
A-C	1216	304			1216				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	300	75	421	0.714	295	1.1	2.3	27.719	D
C-AB	75	19	616	0.122	75	0.1	0.1	6.654	A
C-A	970	242			970				
A-B	23	6			23				
A-C	1489	372			1489				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	300	75	421	0.714	300	2.3	2.4	29.511	D
C-AB	75	19	616	0.122	75	0.1	0.1	6.657	A
C-A	970	242			970				
A-B	23	6			23				
A-C	1489	372			1489				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	245	61	467	0.525	250	2.4	1.1	16.928	C
C-AB	61	15	663	0.092	61	0.1	0.1	5.987	A
C-A	792	198			792				

A-B	19	5			19				
A-C	1216	304			1216				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	205	51	500	0.410	207	1.1	0.7	12.344	B
C-AB	51	13	697	0.074	51	0.1	0.1	5.578	A
C-A	663	166			663				
A-B	16	4			16				
A-C	1018	255			1018				

2023 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		0.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	860	100.000
B - Coal Pit Lane		ONE HOUR	✓	46	100.000
C - A48 Newport Road		ONE HOUR	✓	1220	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
	A - A48 Newport Road	0	139	721
	B - Coal Pit Lane	22	0	25
	C - A48 Newport Road	1086	134	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.21	0.1	A	42	64
C-AB	0.21	6.39	0.3	A	123	185
C-A					996	1495
A-B					127	191
A-C					662	993

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	549	0.063	35	0.0	0.1	7.000	A
C-AB	101	25	762	0.133	101	0.0	0.2	5.436	A
C-A	817	204			817				
A-B	104	26			104				
A-C	543	136			543				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	10	524	0.079	41	0.1	0.1	7.459	A
C-AB	121	30	741	0.163	121	0.2	0.2	5.802	A
C-A	976	244			976				

A-B	125	31			125				
A-C	649	162			649				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	490	0.104	51	0.1	0.1	8.202	A
C-AB	148	37	711	0.208	148	0.2	0.3	6.382	A
C-A	1196	299			1196				
A-B	153	38			153				
A-C	794	199			794				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	490	0.104	51	0.1	0.1	8.206	A
C-AB	148	37	711	0.208	148	0.3	0.3	6.387	A
C-A	1196	299			1196				
A-B	153	38			153				
A-C	794	199			794				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	10	524	0.079	42	0.1	0.1	7.464	A
C-AB	121	30	741	0.163	121	0.3	0.2	5.809	A
C-A	976	244			976				
A-B	125	31			125				
A-C	649	162			649				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	548	0.063	35	0.1	0.1	7.012	A
C-AB	101	25	762	0.133	101	0.2	0.2	5.448	A
C-A	817	204			817				
A-B	104	26			104				
A-C	543	136			543				

2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		3.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	1380	100.000
B - Coal Pit Lane		ONE HOUR	✓	273	100.000
C - A48 Newport Road		ONE HOUR	✓	1022	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	**B - Coal Pit Lane**	**C - A48 Newport Road**
From	**A - A48 Newport Road**	0	21	1359
	B - Coal Pit Lane	135	0	138
	C - A48 Newport Road	954	68	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48 Newport Road	**B - Coal Pit Lane**	**C - A48 Newport Road**
From	**A - A48 Newport Road**	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.72	30.78	2.5	D	250	375
C-AB	0.12	6.67	0.1	A	62	94
C-A					875	1313
A-B					19	29
A-C					1247	1870

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	205	51	497	0.413	203	0.0	0.7	12.116	B
C-AB	51	13	696	0.074	51	0.0	0.1	5.579	A
C-A	718	180			718				
A-B	16	4			16				
A-C	1023	256			1023				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	245	61	463	0.529	244	0.7	1.1	16.275	C
C-AB	61	15	662	0.092	61	0.1	0.1	5.994	A
C-A	858	214			858				
A-B	19	5			19				
A-C	1222	305			1222				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	300	75	416	0.723	295	1.1	2.3	28.759	D
C-AB	75	19	614	0.122	75	0.1	0.1	6.669	A
C-A	1050	263			1050				
A-B	23	6			23				
A-C	1496	374			1496				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	300	75	416	0.723	300	2.3	2.5	30.783	D
C-AB	75	19	614	0.122	75	0.1	0.1	6.671	A
C-A	1050	263			1050				
A-B	23	6			23				
A-C	1496	374			1496				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	245	61	463	0.529	250	2.5	1.2	17.305	C
C-AB	61	15	662	0.092	61	0.1	0.1	5.999	A
C-A	858	214			858				
A-B	19	5			19				
A-C	1222	305			1222				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	205	51	497	0.413	207	1.2	0.7	12.491	B
C-AB	51	13	696	0.074	51	0.1	0.1	5.587	A
C-A	718	180			718				
A-B	16	4			16				
A-C	1023	256			1023				

2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		0.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	919	100.000
B - Coal Pit Lane		ONE HOUR	✓	46	100.000
C - A48 Newport Road		ONE HOUR	✓	1230	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	139	780
	B - Coal Pit Lane	22	0	25
	C - A48 Newport Road	1095	134	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	8.39	0.1	A	43	64
C-AB	0.21	6.51	0.3	A	123	185
C-A					1005	1507
A-B					128	191
A-C					716	1073

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	542	0.064	35	0.0	0.1	7.088	A

C-AB	101	25	755	0.134	101	0.0	0.2	5.499	A
C-A	825	206			825				
A-B	105	26			105				
A-C	587	147			587				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	10	517	0.081	42	0.1	0.1	7.579	A
C-AB	121	30	732	0.165	121	0.2	0.2	5.887	A
C-A	985	246			985				
A-B	125	31			125				
A-C	701	175			701				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	480	0.106	51	0.1	0.1	8.382	A
C-AB	148	37	700	0.211	148	0.2	0.3	6.509	A
C-A	1206	301			1206				
A-B	153	38			153				
A-C	859	215			859				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	480	0.106	51	0.1	0.1	8.386	A
C-AB	148	37	700	0.211	148	0.3	0.3	6.514	A
C-A	1206	301			1206				
A-B	153	38			153				
A-C	859	215			859				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	10	517	0.081	42	0.1	0.1	7.583	A
C-AB	121	30	732	0.165	121	0.3	0.2	5.897	A
C-A	985	246			985				
A-B	125	31			125				
A-C	701	175			701				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	542	0.064	35	0.1	0.1	7.097	A
C-AB	101	25	755	0.134	101	0.2	0.2	5.512	A
C-A	825	206			825				
A-B	105	26			105				
A-C	587	147			587				

2028 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		3.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	1399	100.000
B - Coal Pit Lane		ONE HOUR	✓	278	100.000
C - A48 Newport Road		ONE HOUR	✓	967	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	21	1378
	B - Coal Pit Lane	138	0	140
	C - A48 Newport Road	898	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.74	32.20	2.6	D	255	383
C-AB	0.13	6.73	0.1	A	64	95
C-A					824	1235
A-B					20	29
A-C					1264	1897

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	497	0.421	206	0.0	0.7	12.267	B
C-AB	52	13	693	0.075	52	0.0	0.1	5.609	A
C-A	676	169			676				
A-B	16	4			16				
A-C	1037	259			1037				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	62	463	0.539	248	0.7	1.1	16.599	C
C-AB	62	16	659	0.095	62	0.1	0.1	6.035	A
C-A	807	202			807				
A-B	19	5			19				
A-C	1239	310			1239				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	306	77	416	0.736	301	1.1	2.5	29.871	D
C-AB	76	19	611	0.125	76	0.1	0.1	6.732	A
C-A	988	247			988				
A-B	23	6			23				
A-C	1517	379			1517				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	306	77	416	0.736	306	2.5	2.6	32.201	D
C-AB	76	19	611	0.125	76	0.1	0.1	6.735	A
C-A	988	247			988				
A-B	23	6			23				
A-C	1517	379			1517				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	62	463	0.539	255	2.6	1.2	17.755	C
C-AB	62	16	659	0.095	62	0.1	0.1	6.040	A
C-A	807	202			807				
A-B	19	5			19				
A-C	1239	310			1239				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	497	0.421	211	1.2	0.7	12.668	B
C-AB	52	13	693	0.075	52	0.1	0.1	5.615	A
C-A	676	169			676				
A-B	16	4			16				
A-C	1037	259			1037				

2028 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		0.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	875	100.000
B - Coal Pit Lane		ONE HOUR	✓	47	100.000
C - A48 Newport Road		ONE HOUR	✓	1241	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	141	734
	B - Coal Pit Lane	22	0	25
	C - A48 Newport Road	1105	137	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	8.29	0.1	A	43	65
C-AB	0.21	6.45	0.3	A	126	188
C-A					1014	1520
A-B					129	194
A-C					674	1010

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	546	0.065	35	0.0	0.1	7.038	A
C-AB	103	26	760	0.135	102	0.0	0.2	5.467	A
C-A	832	208			832				
A-B	106	27			106				
A-C	553	138			553				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	521	0.081	42	0.1	0.1	7.512	A
C-AB	123	31	739	0.166	123	0.2	0.2	5.844	A
C-A	993	248			993				
A-B	127	32			127				
A-C	660	165			660				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	486	0.106	52	0.1	0.1	8.282	A
C-AB	151	38	709	0.213	150	0.2	0.3	6.445	A
C-A	1216	304			1216				
A-B	155	39			155				
A-C	808	202			808				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	486	0.106	52	0.1	0.1	8.286	A
C-AB	151	38	709	0.213	151	0.3	0.3	6.450	A
C-A	1216	304			1216				
A-B	155	39			155				
A-C	808	202			808				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	521	0.081	42	0.1	0.1	7.519	A
C-AB	123	31	739	0.166	123	0.3	0.2	5.854	A
C-A	993	248			993				
A-B	127	32			127				
A-C	660	165			660				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	546	0.065	35	0.1	0.1	7.050	A
C-AB	103	26	760	0.135	103	0.2	0.2	5.481	A
C-A	832	208			832				
A-B	106	27			106				
A-C	553	138			553				

2028 with Committed and Proposed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		3.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	1361	100.000
B - Coal Pit Lane		ONE HOUR	✓	278	100.000
C - A48 Newport Road		ONE HOUR	✓	1183	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	21	1339
	B - Coal Pit Lane	138	0	140
	C - A48 Newport Road	1114	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.75	34.27	2.8	D	255	383
C-AB	0.12	6.65	0.1	A	64	95
C-A					1022	1533
A-B					20	29
A-C					1229	1843

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	493	0.424	206	0.0	0.7	12.436	B
C-AB	52	13	698	0.075	52	0.0	0.1	5.566	A
C-A	838	210			838				
A-B	16	4			16				
A-C	1008	252			1008				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	62	458	0.546	248	0.7	1.2	16.998	C
C-AB	62	16	665	0.094	62	0.1	0.1	5.976	A
C-A	1001	250			1001				
A-B	19	5			19				
A-C	1204	301			1204				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	306	77	409	0.748	300	1.2	2.6	31.499	D
C-AB	76	19	618	0.124	76	0.1	0.1	6.642	A
C-A	1226	307			1226				
A-B	24	6			24				
A-C	1474	369			1474				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	306	77	409	0.748	306	2.6	2.8	34.274	D
C-AB	76	19	618	0.124	76	0.1	0.1	6.645	A
C-A	1226	307			1226				
A-B	24	6			24				
A-C	1474	369			1474				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	62	458	0.546	256	2.8	1.2	18.308	C
C-AB	62	16	665	0.094	62	0.1	0.1	5.979	A
C-A	1001	250			1001				
A-B	19	5			19				
A-C	1204	301			1204				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	493	0.425	211	1.2	0.8	12.860	B
C-AB	52	13	698	0.075	52	0.1	0.1	5.572	A
C-A	838	210			838				
A-B	16	4			16				
A-C	1008	252			1008				

2028 with Committed and Proposed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newport Road_Coal Pit Lane	T-Junction	Two-way		0.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A48 Newport Road		ONE HOUR	✓	984	100.000
B - Coal Pit Lane		ONE HOUR	✓	47	100.000
C - A48 Newport Road		ONE HOUR	✓	1194	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	142	843
	B - Coal Pit Lane	22	0	25
	C - A48 Newport Road	1058	137	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A48 Newport Road	B - Coal Pit Lane	C - A48 Newport Road
From	A - A48 Newport Road	0	0	0
	B - Coal Pit Lane	0	0	0
	C - A48 Newport Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	8.55	0.1	A	43	65
C-AB	0.22	6.69	0.3	A	126	188
C-A					970	1456
A-B					130	195
A-C					773	1160

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	537	0.066	35	0.0	0.1	7.170	A
C-AB	103	26	746	0.138	102	0.0	0.2	5.583	A
C-A	796	199			796				
A-B	107	27			107				
A-C	635	159			635				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	510	0.083	42	0.1	0.1	7.690	A
C-AB	123	31	722	0.170	123	0.2	0.2	6.006	A
C-A	951	238			951				
A-B	127	32			127				
A-C	758	189			758				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	473	0.110	52	0.1	0.1	8.548	A
C-AB	151	38	688	0.219	150	0.2	0.3	6.689	A
C-A	1164	291			1164				
A-B	156	39			156				
A-C	928	232			928				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	473	0.110	52	0.1	0.1	8.554	A
C-AB	151	38	688	0.219	151	0.3	0.3	6.694	A
C-A	1164	291			1164				
A-B	156	39			156				
A-C	928	232			928				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	510	0.083	43	0.1	0.1	7.698	A
C-AB	123	31	722	0.170	123	0.3	0.2	6.017	A
C-A	951	238			951				
A-B	127	32			127				
A-C	758	189			758				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	537	0.066	36	0.1	0.1	7.182	A
C-AB	103	26	746	0.138	103	0.2	0.2	5.600	A
C-A	796	199			796				
A-B	107	27			107				
A-C	635	159			635				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: 21_B4239_Wentloog_Avenue_Heol_Las.j9
Path: \\Global\Europe\Bristol\Jobs\252xxx\252199-00\4.40_Calculations\15 - Transport\Junction Modelling\6000 Jobs Scenario\PICADY
Report generation date: 11/05/2020 13:58:28

»2018 Base, Weekday AM Peak
»2018 Base, Weekday PM Peak
»2023 with Committed Development, Weekday AM Peak
»2023 with Committed Development, Weekday PM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak
»2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak
»2028 with Committed Development, Weekday AM Peak
»2028 with Committed Development, Weekday PM Peak
»2028 with Committed and Proposed Development, Weekday AM Peak
»2028 with Committed and Proposed Development, Weekday PM Peak

Summary of junction performance

	Weekday AM Peak				Weekday PM Peak			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Stream B-AC	0.1	8.78	0.07	A	0.1	9.30	0.07	A
Stream C-B	0.0	5.61	0.01	A	0.0	6.04	0.01	A
	2023 with Committed Development							
Stream B-AC	0.1	8.87	0.08	A	0.1	9.40	0.07	A
Stream C-B	0.0	5.63	0.01	A	0.0	6.08	0.01	A
	2023 with Committed Development and Proposed Development (Phase 1)							
Stream B-AC	0.1	8.87	0.08	A	0.1	9.42	0.07	A
Stream C-B	0.0	5.64	0.01	A	0.0	6.08	0.01	A
	2028 with Committed Development							
Stream B-AC	0.1	8.93	0.08	A	0.1	9.46	0.07	A
Stream C-B	0.0	5.65	0.01	A	0.0	6.10	0.01	A
	2028 with Committed and Proposed Development							
Stream B-AC	0.1	8.92	0.08	A	0.1	9.49	0.07	A
Stream C-B	0.0	5.65	0.01	A	0.0	6.10	0.01	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	04/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\Kamila.Januszek
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Base, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Wentloog Ave		Major
B	Heol Las		Minor
C	B4239		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - B4239	5.40			250.0		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Heol Las	One lane	3.08	22	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	498	0.093	0.235	0.148	0.336
1	B-C	641	0.101	0.255	-	-
1	C-B	719	0.286	0.286	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Base	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	229	100.000
B - Heol Las		✓	29	100.000
C - B4239		✓	327	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	19	210
	B - Heol Las	18	0	11
	C - B4239	322	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	8.78	0.1	A
C-A				
C-B	0.01	5.61	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	475	0.046	22	0.0	7.947	A
C-A	242			242			
C-B	4	669	0.006	4	0.0	5.407	A
A-B	15			15			
A-C	158			158			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	461	0.057	26	0.1	8.277	A
C-A	289			289			
C-B	4	660	0.007	4	0.0	5.492	A
A-B	17			17			
A-C	189			189			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	442	0.073	32	0.1	8.778	A
C-A	354			354			
C-B	6	647	0.009	5	0.0	5.614	A
A-B	21			21			
A-C	231			231			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	442	0.073	32	0.1	8.780	A
C-A	354			354			
C-B	6	647	0.009	6	0.0	5.614	A
A-B	21			21			
A-C	231			231			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	461	0.057	26	0.1	8.283	A
C-A	289			289			
C-B	4	660	0.007	5	0.0	5.492	A
A-B	17			17			
A-C	189			189			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	475	0.046	22	0.0	7.956	A
C-A	242			242			
C-B	4	669	0.006	4	0.0	5.407	A
A-B	15			15			
A-C	158			158			

2018 Base, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Base	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	369	100.000
B - Heol Las		✓	25	100.000
C - B4239		✓	167	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	30	339
	B - Heol Las	18	0	7
	C - B4239	161	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Wentloog Ave	B - Heol Las	C - B4239
	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	9.30	0.1	A
C-A				
C-B	0.01	6.04	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	452	0.042	19	0.0	8.305	A
C-A	121			121			
C-B	5	639	0.007	5	0.0	5.672	A
A-B	23			23			
A-C	255			255			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	436	0.052	22	0.1	8.700	A
C-A	145			145			
C-B	6	624	0.009	6	0.0	5.822	A
A-B	27			27			
A-C	304			304			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	414	0.066	27	0.1	9.302	A
C-A	177			177			
C-B	7	603	0.012	7	0.0	6.042	A
A-B	33			33			
A-C	373			373			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	28	414	0.066	28	0.1	9.304	A
C-A	177			177			
C-B	7	603	0.012	7	0.0	6.042	A
A-B	33			33			
A-C	373			373			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	436	0.052	23	0.1	8.707	A
C-A	145			145			
C-B	6	624	0.009	6	0.0	5.824	A
A-B	27			27			
A-C	304			304			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	452	0.042	19	0.0	8.318	A
C-A	121			121			
C-B	5	639	0.007	5	0.0	5.674	A
A-B	23			23			
A-C	255			255			

2023 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	236	100.000
B - Heol Las		✓	30	100.000
C - B4239		✓	336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	20	216
	B - Heol Las	19	0	11
	C - B4239	331	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	8.87	0.1	A
C-A				
C-B	0.01	5.63	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	473	0.048	23	0.1	7.994	A
C-A	249			249			

C-B	4	668	0.006	4	0.0	5.420	A
A-B	15			15			
A-C	163			163			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	459	0.059	27	0.1	8.340	A
C-A	298			298			
C-B	5	658	0.007	5	0.0	5.508	A
A-B	18			18			
A-C	194			194			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	439	0.076	33	0.1	8.866	A
C-A	364			364			
C-B	6	644	0.009	6	0.0	5.635	A
A-B	22			22			
A-C	238			238			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	439	0.076	33	0.1	8.867	A
C-A	364			364			
C-B	6	644	0.009	6	0.0	5.635	A
A-B	22			22			
A-C	238			238			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	459	0.059	27	0.1	8.346	A
C-A	298			298			
C-B	5	658	0.007	5	0.0	5.510	A
A-B	18			18			
A-C	194			194			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	473	0.048	23	0.1	8.002	A
C-A	249			249			
C-B	4	668	0.006	4	0.0	5.420	A
A-B	15			15			
A-C	163			163			

2023 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	379	100.000
B - Heol Las		✓	26	100.000
C - B4239		✓	172	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	31	348
	B - Heol Las	18	0	7
	C - B4239	165	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Wentloog Ave	B - Heol Las	C - B4239
	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	9.40	0.1	A
C-A				
C-B	0.01	6.08	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	450	0.043	19	0.0	8.359	A
C-A	124			124			
C-B	5	637	0.008	5	0.0	5.692	A
A-B	23			23			
A-C	262			262			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	434	0.053	23	0.1	8.768	A
C-A	148			148			
C-B	6	621	0.009	6	0.0	5.847	A
A-B	28			28			
A-C	312			312			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	411	0.069	28	0.1	9.396	A
C-A	182			182			
C-B	7	600	0.012	7	0.0	6.076	A
A-B	34			34			
A-C	383			383			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	28	411	0.069	28	0.1	9.398	A
C-A	182			182			
C-B	7	600	0.012	7	0.0	6.076	A
A-B	34			34			
A-C	383			383			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	434	0.053	23	0.1	8.774	A
C-A	148			148			
C-B	6	621	0.009	6	0.0	5.849	A
A-B	28			28			
A-C	312			312			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	450	0.043	19	0.0	8.369	A
C-A	124			124			
C-B	5	637	0.008	5	0.0	5.694	A
A-B	23			23			
A-C	262			262			

2023 with Committed Development and Proposed Development (Phase 1), Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 with Committed Development and Proposed Development (Phase 1)	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	236	100.000
B - Heol Las		✓	30	100.000
C - B4239		✓	336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	20	216
	B - Heol Las	19	0	11
	C - B4239	331	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	8.87	0.1	A
C-A				
C-B	0.01	5.64	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	472	0.048	23	0.1	7.999	A
C-A	249			249			
C-B	4	668	0.006	4	0.0	5.421	A
A-B	15			15			
A-C	163			163			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	458	0.059	27	0.1	8.345	A
C-A	298			298			
C-B	5	658	0.007	5	0.0	5.509	A
A-B	18			18			
A-C	194			194			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	439	0.076	33	0.1	8.873	A
C-A	364			364			
C-B	6	644	0.009	6	0.0	5.636	A
A-B	22			22			
A-C	238			238			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	439	0.076	33	0.1	8.874	A
C-A	364			364			
C-B	6	644	0.009	6	0.0	5.636	A
A-B	22			22			
A-C	238			238			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	458	0.059	27	0.1	8.351	A
C-A	298			298			
C-B	5	658	0.007	5	0.0	5.511	A
A-B	18			18			
A-C	194			194			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	472	0.048	23	0.1	8.007	A
C-A	249			249			
C-B	4	668	0.006	4	0.0	5.421	A
A-B	15			15			
A-C	163			163			

2023 with Committed Development and Proposed Development (Phase 1), Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 with Committed Development and Proposed Development (Phase 1)	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	379	100.000
B - Heol Las		✓	26	100.000
C - B4239		✓	172	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	31	348
	B - Heol Las	19	0	7
	C - B4239	165	6	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Wentloog Ave	B - Heol Las	C - B4239
	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	9.42	0.1	A
C-A				
C-B	0.01	6.08	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	449	0.044	19	0.0	8.375	A
C-A	124			124			
C-B	5	637	0.008	5	0.0	5.692	A
A-B	24			24			
A-C	262			262			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	433	0.054	23	0.1	8.787	A
C-A	148			148			
C-B	6	621	0.009	6	0.0	5.847	A
A-B	28			28			
A-C	312			312			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	411	0.070	29	0.1	9.422	A
C-A	182			182			
C-B	7	599	0.012	7	0.0	6.076	A
A-B	34			34			
A-C	383			383			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	411	0.070	29	0.1	9.423	A
C-A	182			182			
C-B	7	599	0.012	7	0.0	6.076	A
A-B	34			34			
A-C	383			383			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	433	0.054	23	0.1	8.792	A
C-A	148			148			
C-B	6	621	0.009	6	0.0	5.850	A
A-B	28			28			
A-C	312			312			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	449	0.044	20	0.0	8.384	A
C-A	124			124			
C-B	5	637	0.008	5	0.0	5.694	A
A-B	24			24			
A-C	262			262			

2028 with Committed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)

D7	2028 with Committed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	241	100.000
B - Heol Las		✓	31	100.000
C - B4239		✓	343	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	**B - Heol Las**	**C - B4239**
From	**A - Wentloog Ave**	0	20	220
	B - Heol Las	19	0	12
	C - B4239	337	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Wentloog Ave	**B - Heol Las**	**C - B4239**
From	**A - Wentloog Ave**	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	8.93	0.1	A
C-A				
C-B	0.01	5.65	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	23	471	0.049	23	0.1	8.027	A
C-A	254			254			
C-B	4	667	0.006	4	0.0	5.429	A
A-B	15			15			
A-C	166			166			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	457	0.060	28	0.1	8.382	A
C-A	303			303			
C-B	5	657	0.007	5	0.0	5.519	A
A-B	18			18			
A-C	198			198			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	437	0.077	34	0.1	8.922	A
C-A	371			371			
C-B	6	643	0.009	6	0.0	5.648	A
A-B	22			22			
A-C	243			243			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	437	0.077	34	0.1	8.926	A
C-A	371			371			
C-B	6	643	0.009	6	0.0	5.648	A
A-B	22			22			
A-C	243			243			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	457	0.060	28	0.1	8.387	A
C-A	303			303			
C-B	5	657	0.007	5	0.0	5.521	A
A-B	18			18			
A-C	198			198			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	471	0.049	23	0.1	8.035	A
C-A	254			254			
C-B	4	667	0.006	4	0.0	5.431	A
A-B	15			15			
A-C	166			166			

2028 with Committed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 with Committed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	386	100.000
B - Heol Las		✓	26	100.000
C - B4239		✓	175	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	**B - Heol Las**	**C - B4239**
From	**A - Wentloog Ave**	0	32	354
	B - Heol Las	19	0	8
	C - B4239	168	7	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Wentloog Ave	B - Heol Las	C - B4239
	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	9.46	0.1	A
C-A				
C-B	0.01	6.10	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	448	0.044	19	0.0	8.394	A
C-A	127			127			
C-B	5	636	0.008	5	0.0	5.706	A
A-B	24			24			
A-C	266			266			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	432	0.054	23	0.1	8.814	A
C-A	151			151			
C-B	6	620	0.010	6	0.0	5.864	A
A-B	29			29			
A-C	318			318			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	409	0.070	29	0.1	9.463	A
C-A	185			185			
C-B	7	597	0.012	7	0.0	6.099	A
A-B	35			35			
A-C	390			390			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	29	409	0.070	29	0.1	9.464	A
C-A	185			185			
C-B	7	597	0.012	7	0.0	6.099	A
A-B	35			35			
A-C	390			390			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	432	0.054	24	0.1	8.819	A
C-A	151			151			
C-B	6	620	0.010	6	0.0	5.867	A
A-B	29			29			
A-C	318			318			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	448	0.044	20	0.0	8.403	A
C-A	127			127			
C-B	5	636	0.008	5	0.0	5.708	A
A-B	24			24			
A-C	266			266			

2028 with Committed and Proposed Development, Weekday AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 with Committed and Proposed Development	Weekday AM Peak	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	241	100.000
B - Heol Las		✓	31	100.000
C - B4239		✓	337	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	21	220
	B - Heol Las	19	0	12
	C - B4239	331	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	8.92	0.1	A
C-A				
C-B	0.01	5.65	0.0	A
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	472	0.049	23	0.1	8.022	A
C-A	249			249			

C-B	4	667	0.006	4	0.0	5.429	A
A-B	16			16			
A-C	166			166			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	457	0.061	28	0.1	8.375	A
C-A	298			298			
C-B	5	657	0.007	5	0.0	5.520	A
A-B	19			19			
A-C	198			198			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	438	0.078	34	0.1	8.911	A
C-A	365			365			
C-B	6	643	0.009	6	0.0	5.649	A
A-B	23			23			
A-C	243			243			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	438	0.078	34	0.1	8.915	A
C-A	365			365			
C-B	6	643	0.009	6	0.0	5.649	A
A-B	23			23			
A-C	243			243			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	457	0.061	28	0.1	8.380	A
C-A	298			298			
C-B	5	657	0.007	5	0.0	5.522	A
A-B	19			19			
A-C	198			198			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	472	0.049	23	0.1	8.030	A
C-A	249			249			
C-B	4	667	0.006	4	0.0	5.432	A
A-B	16			16			
A-C	166			166			

2028 with Committed and Proposed Development, Weekday PM Peak

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Major arm width	C - B4239 - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 with Committed and Proposed Development	Weekday PM Peak	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Wentloog Ave		✓	386	100.000
B - Heol Las		✓	27	100.000
C - B4239		✓	175	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Wentloog Ave	B - Heol Las	C - B4239
From	A - Wentloog Ave	0	32	354
	B - Heol Las	19	0	8
	C - B4239	168	7	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Wentloog Ave	B - Heol Las	C - B4239
	A - Wentloog Ave	0	0	0
	B - Heol Las	0	0	0
	C - B4239	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	9.49	0.1	A
C-A				
C-B	0.01	6.10	0.0	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	448	0.045	20	0.0	8.411	A
C-A	127			127			
C-B	5	636	0.008	5	0.0	5.706	A
A-B	24			24			
A-C	266			266			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	431	0.055	24	0.1	8.834	A
C-A	151			151			
C-B	6	620	0.010	6	0.0	5.865	A
A-B	29			29			
A-C	318			318			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	409	0.071	29	0.1	9.484	A
C-A	185			185			
C-B	7	597	0.012	7	0.0	6.099	A
A-B	35			35			
A-C	390			390			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-AC	29	409	0.071	29	0.1	9.489	A
C-A	185			185			
C-B	7	597	0.012	7	0.0	6.099	A
A-B	35			35			
A-C	390			390			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	431	0.055	24	0.1	8.839	A
C-A	151			151			
C-B	6	620	0.010	6	0.0	5.867	A
A-B	29			29			
A-C	318			318			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	448	0.045	20	0.0	8.419	A
C-A	127			127			
C-B	5	636	0.008	5	0.0	5.706	A
A-B	24			24			
A-C	266			266			

Appendix S

LinSig Outputs

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Client:	Cardiff Parkway Developments
Additional detail:	
File name:	Junction 8 B4487_Mount Pleasant.lsg3x
Author:	
Company:	
Address:	

Basic Results Summary

Network Results

Scenario 1: 'Base AM' (FG1: '2018 Base AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**56.3%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**56.3%**
7/1	Mount Pleasant Ahead	0.1	1.1	15.2%
9/1	Mount Pleasant Ahead	0.4	1.7	43.9%
3/1	Mount Pleasant Left	11.4	18.2	56.1%
3/2	Mount Pleasant Right	8.5	35.9	56.3%
4/1	Mount Pleasant Right Ahead	6.4	2.6	29.6%
1/1	Newport Road (NE) Ahead	2.4	17.9	13.9%
1/2	Newport Road (NE) Right	7.5	34.2	56.1%
2/2+2/1	Newport Road (SW) Ahead Left	7.3	27.8	55.2 : 0.0%
6/1	Newport Road Ahead	0.5	1.6	23.6%
10/2+10/1	Newport Road Ahead Left	8.2	14.2	49.6 : 49.6%

C1 PRC for Signalled Lanes (%): 59.8 Total Delay for Signalled Lanes (pcuHr): 13.97 Cycle Time (s): 180
PRC Over All Lanes (%): 59.8 Total Delay Over All Lanes(pcuHr): 14.69

Basic Results Summary

Scenario 2: 'Base PM' (FG2: '2018 Base PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**63.8%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**63.8%**
7/1	Mount Pleasant Ahead	0.1	1.2	22.4%
9/1	Mount Pleasant Ahead	0.4	1.6	41.9%
3/1	Mount Pleasant Left	7.1	11.1	36.8%
3/2	Mount Pleasant Right	11.2	35.2	63.4%
4/1	Mount Pleasant Right Ahead	8.3	3.3	34.2%
1/1	Newport Road (NE) Ahead	2.4	22.4	14.1%
1/2	Newport Road (NE) Right	10.7	29.4	63.8%
2/2+2/1	Newport Road (SW) Ahead Left	4.0	40.4	54.7 : 0.0%
6/1	Newport Road Ahead	1.2	2.4	28.1%
10/2+10/1	Newport Road Ahead Left	9.7	20.4	49.8 : 49.8%

C1	PRC for Signalled Lanes (%):	41.2	Total Delay for Signalled Lanes (pcuHr):	13.88	Cycle Time (s):	180
	PRC Over All Lanes (%):	41.2	Total Delay Over All Lanes(pcuHr):	14.71		

Basic Results Summary

Scenario 3: '2023 AM + Com Dev' (FG3: '2023 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**59.4%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**59.4%**
7/1	Mount Pleasant Ahead	0.1	1.1	16.0%
9/1	Mount Pleasant Ahead	0.4	1.8	46.8%
3/1	Mount Pleasant Left	11.6	17.7	58.2%
3/2	Mount Pleasant Right	9.5	36.1	58.8%
4/1	Mount Pleasant Right Ahead	7.2	2.9	33.8%
1/1	Newport Road (NE) Ahead	2.5	18.6	14.7%
1/2	Newport Road (NE) Right	8.3	35.1	58.9%
2/2+2/1	Newport Road (SW) Ahead Left	7.8	29.8	59.4 : 0.0%
6/1	Newport Road Ahead	0.5	1.6	25.2%
10/2+10/1	Newport Road Ahead Left	9.8	14.8	53.4 : 53.4%

C1	PRC for Signalled Lanes (%):	51.5	Total Delay for Signalled Lanes (pcuHr):	15.09	Cycle Time (s):	180
	PRC Over All Lanes (%):	51.5	Total Delay Over All Lanes(pcuHr):	15.93		

Basic Results Summary

Scenario 4: '2023 PM + Com Dev' (FG4: '2023 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**67.5%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**67.5%**
7/1	Mount Pleasant Ahead	0.2	1.2	23.6%
9/1	Mount Pleasant Ahead	0.4	1.7	44.1%
3/1	Mount Pleasant Left	7.7	11.6	38.6%
3/2	Mount Pleasant Right	12.0	36.4	67.5%
4/1	Mount Pleasant Right Ahead	8.9	3.5	37.3%
1/1	Newport Road (NE) Ahead	2.5	22.9	14.7%
1/2	Newport Road (NE) Right	11.4	30.5	67.0%
2/2+2/1	Newport Road (SW) Ahead Left	4.1	40.7	56.1 : 0.0%
6/1	Newport Road Ahead	1.2	2.5	29.9%
10/2+10/1	Newport Road Ahead Left	10.5	20.8	53.0 : 53.0%

C1	PRC for Signalled Lanes (%):	33.4	Total Delay for Signalled Lanes (pcuHr):	15.04	Cycle Time (s):	180
	PRC Over All Lanes (%):	33.4	Total Delay Over All Lanes(pcuHr):	15.96		

Basic Results Summary

Scenario 5: '2023 AM + Com Dev + Dev' (FG5: '2023 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**61.1%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**61.1%**
7/1	Mount Pleasant Ahead	0.1	1.1	16.7%
9/1	Mount Pleasant Ahead	0.4	1.8	47.3%
3/1	Mount Pleasant Left	12.1	18.1	58.5%
3/2	Mount Pleasant Right	9.5	36.0	60.0%
4/1	Mount Pleasant Right Ahead	7.9	2.9	36.0%
1/1	Newport Road (NE) Ahead	2.6	19.1	14.8%
1/2	Newport Road (NE) Right	8.5	34.9	60.3%
2/2+2/1	Newport Road (SW) Ahead Left	7.8	30.4	61.1 : 0.0%
6/1	Newport Road Ahead	0.5	1.6	25.7%
10/2+10/1	Newport Road Ahead Left	11.4	15.7	57.3 : 57.3%

C1	PRC for Signalled Lanes (%):	47.3	Total Delay for Signalled Lanes (pcuHr):	15.72	Cycle Time (s):	180
	PRC Over All Lanes (%):	47.3	Total Delay Over All Lanes(pcuHr):	16.60		

Basic Results Summary

Scenario 6: '2023 PM + Com Dev + Dev' (FG6: '2023 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**70.4%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**70.4%**
7/1	Mount Pleasant Ahead	0.2	1.2	23.7%
9/1	Mount Pleasant Ahead	0.4	1.8	46.5%
3/1	Mount Pleasant Left	8.2	12.2	40.2%
3/2	Mount Pleasant Right	12.9	36.3	70.4%
4/1	Mount Pleasant Right Ahead	8.8	3.5	38.1%
1/1	Newport Road (NE) Ahead	2.5	24.0	15.3%
1/2	Newport Road (NE) Right	11.6	32.1	69.4%
2/2+2/1	Newport Road (SW) Ahead Left	4.0	41.6	56.1 : 0.0%
6/1	Newport Road Ahead	1.3	2.6	32.0%
10/2+10/1	Newport Road Ahead Left	10.3	19.7	52.8 : 52.8%

C1	PRC for Signalled Lanes (%):	27.8	Total Delay for Signalled Lanes (pcuHr):	15.70	Cycle Time (s):	180
	PRC Over All Lanes (%):	27.8	Total Delay Over All Lanes(pcuHr):	16.67		

Basic Results Summary

Scenario 7: '2028 AM + Com Dev' (FG7: '2028 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**60.7%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**60.7%**
7/1	Mount Pleasant Ahead	0.1	1.1	16.3%
9/1	Mount Pleasant Ahead	0.5	1.8	47.7%
3/1	Mount Pleasant Left	12.6	18.8	59.9%
3/2	Mount Pleasant Right	9.4	35.8	59.8%
4/1	Mount Pleasant Right Ahead	7.2	2.8	33.4%
1/1	Newport Road (NE) Ahead	2.6	18.9	15.1%
1/2	Newport Road (NE) Right	8.1	35.2	60.0%
2/2+2/1	Newport Road (SW) Ahead Left	7.9	30.4	60.7 : 0.0%
6/1	Newport Road Ahead	0.5	1.6	25.8%
10/2+10/1	Newport Road Ahead Left	9.9	14.7	54.3 : 54.3%

C1	PRC for Signalled Lanes (%):	48.3	Total Delay for Signalled Lanes (pcuHr):	15.56	Cycle Time (s):	180
	PRC Over All Lanes (%):	48.3	Total Delay Over All Lanes(pcuHr):	16.40		

Basic Results Summary

Scenario 8: '2028 PM + Com Dev' (FG8: '2028 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**68.6%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**68.6%**
7/1	Mount Pleasant Ahead	0.2	1.2	24.0%
9/1	Mount Pleasant Ahead	0.4	1.7	44.9%
3/1	Mount Pleasant Left	7.9	12.1	39.6%
3/2	Mount Pleasant Right	12.1	36.7	68.6%
4/1	Mount Pleasant Right Ahead	8.9	3.6	38.1%
1/1	Newport Road (NE) Ahead	2.5	23.3	15.1%
1/2	Newport Road (NE) Right	11.5	30.8	68.1%
2/2+2/1	Newport Road (SW) Ahead Left	4.2	41.5	57.4 : 0.0%
6/1	Newport Road Ahead	1.3	2.6	30.6%
10/2+10/1	Newport Road Ahead Left	10.7	20.7	53.9 : 53.9%

C1	PRC for Signalled Lanes (%):	31.1	Total Delay for Signalled Lanes (pcuHr):	15.48	Cycle Time (s):	180
	PRC Over All Lanes (%):	31.1	Total Delay Over All Lanes(pcuHr):	16.43		

Basic Results Summary

Scenario 9: '2028 AM + Com Dev + Dev' (FG9: '2028 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**61.7%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**61.7%**
7/1	Mount Pleasant Ahead	0.1	1.1	17.7%
9/1	Mount Pleasant Ahead	0.5	1.8	47.4%
3/1	Mount Pleasant Left	13.1	19.4	60.9%
3/2	Mount Pleasant Right	9.3	37.8	61.6%
4/1	Mount Pleasant Right Ahead	7.9	3.0	36.9%
1/1	Newport Road (NE) Ahead	2.6	18.4	14.7%
1/2	Newport Road (NE) Right	8.9	34.3	61.7%
2/2+2/1	Newport Road (SW) Ahead Left	7.9	29.1	60.7 : 0.0%
6/1	Newport Road Ahead	0.5	1.6	25.5%
10/2+10/1	Newport Road Ahead Left	12.1	16.5	59.1 : 59.1%

C1	PRC for Signalled Lanes (%):	45.9	Total Delay for Signalled Lanes (pcuHr):	16.34	Cycle Time (s):	180
	PRC Over All Lanes (%):	45.9	Total Delay Over All Lanes(pcuHr):	17.24		

Basic Results Summary

Scenario 10: '2028 PM + Com Dev + Dev' (FG10: '2028 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**70.9%**
EW12 Mount Pleasant Avenue	**-**	**-**	**-**	**70.9%**
7/1	Mount Pleasant Ahead	0.2	1.2	23.9%
9/1	Mount Pleasant Ahead	0.5	1.8	48.3%
3/1	Mount Pleasant Left	8.8	12.5	42.4%
3/2	Mount Pleasant Right	13.0	36.0	70.8%
4/1	Mount Pleasant Right Ahead	8.4	3.5	37.3%
1/1	Newport Road (NE) Ahead	2.6	24.5	15.9%
1/2	Newport Road (NE) Right	12.0	33.2	70.9%
2/2+2/1	Newport Road (SW) Ahead Left	4.1	42.6	57.4 : 0.0%
6/1	Newport Road Ahead	1.4	2.6	32.7%
10/2+10/1	Newport Road Ahead Left	9.7	19.0	51.5 : 51.5%

C1	PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	16.02	Cycle Time (s):	180
	PRC Over All Lanes (%):	27.0	Total Delay Over All Lanes(pcuHr):	17.01		

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Client:	Cardiff Parkway Developments
Additional detail:	
File name:	Junction 9 B4487_Llanrumney Avenue.lsg3x
Author:	Phill Ayres
Company:	Arup
Address:	

Basic Results Summary

Network Results

Scenario 1: 'Base AM' (FG1: '2018 Base AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**45.7%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**45.7%**
9/1	Llanrumney Ave Ahead	0.2	1.3	24.8%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	2.2%
4/1	Llanrumney Ave Exit Right Ahead	0.4	4.7	45.7%
3/1	Llanrumney Ave Left Right	3.4	23.0	43.6%
3/2	Llanrumney Ave Right	3.6	23.0	44.4%
1/1	Newport Road (NE) Ahead	3.5	11.2	33.5%
1/2	Newport Road (NE) Ahead	3.9	11.2	35.3%
1/3	Newport Road (NE) Right	0.4	11.9	7.5%
2/1	Newport Road (SW) Ahead	1.6	9.9	17.3%
2/2	Newport Road (SW) Ahead	2.0	9.9	19.4%
10/1	Newport Road Ahead Left	0.3	1.4	35.6%

C1	PRC for Signalled Lanes (%):	102.7	Total Delay for Signalled Lanes (pcuHr):	6.36	Cycle Time (s):	60
	PRC Over All Lanes (%):	97.1	Total Delay Over All Lanes(pcuHr):	7.23		

Basic Results Summary

Scenario 2: 'Base PM' (FG2: '2018 Base PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**77.6%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**77.6%**
9/1	Llanrumney Ave Ahead	0.1	1.2	22.9%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	4.7%
4/1	Llanrumney Ave Exit Right Ahead	1.7	11.3	77.6%
3/1	Llanrumney Ave Left Right	3.3	25.4	45.2%
3/2	Llanrumney Ave Right	3.5	25.4	46.4%
1/1	Newport Road (NE) Ahead	1.9	9.0	19.7%
1/2	Newport Road (NE) Ahead	2.2	9.0	21.9%
1/3	Newport Road (NE) Right	0.8	13.3	18.2%
2/1	Newport Road (SW) Ahead	2.3	9.2	23.6%
2/2	Newport Road (SW) Ahead	2.7	9.2	25.6%
10/1	Newport Road Ahead Left	0.6	2.0	55.1%

C1 PRC for Signalled Lanes (%): 94.1 Total Delay for Signalled Lanes (pcuHr): 5.90 Cycle Time (s): 60
PRC Over All Lanes (%): 15.9 Total Delay Over All Lanes(pcuHr): 8.38

Basic Results Summary

Scenario 3: '2023 AM + Com Dev' (FG3: '2023 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**49.1%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**49.1%**
9/1	Llanrumney Ave Ahead	0.2	1.3	26.8%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	2.3%
4/1	Llanrumney Ave Exit Right Ahead	0.5	5.0	49.1%
3/1	Llanrumney Ave Left Right	3.7	23.6	47.1%
3/2	Llanrumney Ave Right	4.0	23.6	48.1%
1/1	Newport Road (NE) Ahead	3.6	11.4	35.1%
1/2	Newport Road (NE) Ahead	4.1	11.4	37.1%
1/3	Newport Road (NE) Right	0.4	12.3	8.2%
2/1	Newport Road (SW) Ahead	1.7	10.0	18.4%
2/2	Newport Road (SW) Ahead	2.0	10.0	20.2%
10/1	Newport Road Ahead Left	0.3	1.5	37.9%

C1	PRC for Signalled Lanes (%):	87.0	Total Delay for Signalled Lanes (pcuHr):	6.91	Cycle Time (s):	60
	PRC Over All Lanes (%):	83.3	Total Delay Over All Lanes(pcuHr):	7.89		

Basic Results Summary

Scenario 4: '2023 PM + Com Dev' (FG4: '2023 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**82.2%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**82.2%**
9/1	Llanrumney Ave Ahead	0.2	1.3	24.5%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	4.8%
4/1	Llanrumney Ave Exit Right Ahead	2.9	14.1	82.2%
3/1	Llanrumney Ave Left Right	3.6	26.1	48.5%
3/2	Llanrumney Ave Right	3.8	26.1	49.5%
1/1	Newport Road (NE) Ahead	1.9	9.0	20.5%
1/2	Newport Road (NE) Ahead	2.3	9.0	22.8%
1/3	Newport Road (NE) Right	0.9	13.5	19.2%
2/1	Newport Road (SW) Ahead	2.4	9.3	24.7%
2/2	Newport Road (SW) Ahead	2.8	9.3	26.7%
10/1	Newport Road Ahead Left	0.7	2.2	57.9%

C1 PRC for Signalled Lanes (%): 81.7 Total Delay for Signalled Lanes (pcuHr): 6.33 Cycle Time (s): 60
PRC Over All Lanes (%): 9.5 Total Delay Over All Lanes(pcuHr): 9.43

Basic Results Summary

Scenario 5: '2023 AM + Com Dev + Dev' (FG5: '2023 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**49.1%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**49.1%**
9/1	Llanrumney Ave Ahead	0.2	1.3	27.1%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	2.4%
4/1	Llanrumney Ave Exit Right Ahead	0.5	5.0	49.1%
3/1	Llanrumney Ave Left Right	3.8	23.7	47.7%
3/2	Llanrumney Ave Right	4.0	23.7	48.7%
1/1	Newport Road (NE) Ahead	3.6	11.4	35.1%
1/2	Newport Road (NE) Ahead	4.1	11.4	37.2%
1/3	Newport Road (NE) Right	0.4	12.5	8.5%
2/1	Newport Road (SW) Ahead	1.7	10.0	18.6%
2/2	Newport Road (SW) Ahead	2.1	10.0	20.5%
10/1	Newport Road Ahead Left	0.3	1.5	38.1%

C1 PRC for Signalled Lanes (%): 84.9 Total Delay for Signalled Lanes (pcuHr): 6.99 Cycle Time (s): 60
PRC Over All Lanes (%): 83.2 Total Delay Over All Lanes(pcuHr): 7.98

Basic Results Summary

Scenario 6: '2023 PM + Com Dev + Dev' (FG6: '2023 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**82.3%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**82.3%**
9/1	Llanrumney Ave Ahead	0.2	1.3	24.5%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	5.1%
4/1	Llanrumney Ave Exit Right Ahead	2.9	14.2	82.3%
3/1	Llanrumney Ave Left Right	3.6	26.1	48.5%
3/2	Llanrumney Ave Right	3.8	26.1	49.7%
1/1	Newport Road (NE) Ahead	2.0	9.0	20.9%
1/2	Newport Road (NE) Ahead	2.3	9.0	23.3%
1/3	Newport Road (NE) Right	0.9	13.6	20.2%
2/1	Newport Road (SW) Ahead	2.4	9.3	24.8%
2/2	Newport Road (SW) Ahead	2.8	9.3	26.8%
10/1	Newport Road Ahead Left	0.7	2.2	58.0%

C1	PRC for Signalled Lanes (%):	81.0	Total Delay for Signalled Lanes (pcuHr):	6.40	Cycle Time (s):	60
	PRC Over All Lanes (%):	9.3	Total Delay Over All Lanes(pcuHr):	9.52		

Basic Results Summary

Scenario 7: '2028 AM + Com Dev' (FG7: '2028 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**50.1%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**50.1%**
9/1	Llanrumney Ave Ahead	0.2	1.3	27.3%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	2.4%
4/1	Llanrumney Ave Exit Right Ahead	0.5	5.1	50.1%
3/1	Llanrumney Ave Left Right	3.9	23.8	48.0%
3/2	Llanrumney Ave Right	4.0	23.8	48.9%
1/1	Newport Road (NE) Ahead	3.7	11.4	35.8%
1/2	Newport Road (NE) Ahead	4.3	11.4	37.8%
1/3	Newport Road (NE) Right	0.4	12.5	8.5%
2/1	Newport Road (SW) Ahead	1.8	10.0	18.7%
2/2	Newport Road (SW) Ahead	2.1	10.0	20.6%
10/1	Newport Road Ahead Left	0.3	1.5	38.6%

C1	PRC for Signalled Lanes (%):	84.2	Total Delay for Signalled Lanes (pcuHr):	7.08	Cycle Time (s):	60
	PRC Over All Lanes (%):	79.6	Total Delay Over All Lanes(pcuHr):	8.09		

Basic Results Summary

Scenario 8: '2028 PM + Com Dev' (FG8: '2028 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**83.5%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**83.5%**
9/1	Llanrumney Ave Ahead	0.2	1.3	24.8%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	4.9%
4/1	Llanrumney Ave Exit Right Ahead	3.1	15.1	83.5%
3/1	Llanrumney Ave Left Right	3.6	26.2	49.1%
3/2	Llanrumney Ave Right	3.8	26.2	50.4%
1/1	Newport Road (NE) Ahead	2.0	9.0	20.9%
1/2	Newport Road (NE) Ahead	2.3	9.0	23.3%
1/3	Newport Road (NE) Right	0.9	13.6	19.8%
2/1	Newport Road (SW) Ahead	2.4	9.3	25.1%
2/2	Newport Road (SW) Ahead	2.8	9.3	27.3%
10/1	Newport Road Ahead Left	0.7	2.2	58.8%

C1	PRC for Signalled Lanes (%):	78.7	Total Delay for Signalled Lanes (pcuHr):	6.47	Cycle Time (s):	60
	PRC Over All Lanes (%):	7.7	Total Delay Over All Lanes(pcuHr):	9.81		

Basic Results Summary

Scenario 9: '2028 AM + Com Dev + Dev' (FG9: '2028 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**50.1%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**50.1%**
9/1	Llanrumney Ave Ahead	0.2	1.3	27.8%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	2.4%
4/1	Llanrumney Ave Exit Right Ahead	0.5	5.1	50.1%
3/1	Llanrumney Ave Left Right	4.0	24.0	49.0%
3/2	Llanrumney Ave Right	4.1	24.0	49.8%
1/1	Newport Road (NE) Ahead	3.7	11.4	35.9%
1/2	Newport Road (NE) Ahead	4.3	11.5	38.0%
1/3	Newport Road (NE) Right	0.4	12.5	8.7%
2/1	Newport Road (SW) Ahead	1.8	10.0	19.0%
2/2	Newport Road (SW) Ahead	2.1	10.0	21.1%
10/1	Newport Road Ahead Left	0.3	1.5	39.0%

C1 PRC for Signalled Lanes (%): 80.7 Total Delay for Signalled Lanes (pcuHr): 7.21 Cycle Time (s): 60
PRC Over All Lanes (%): 79.5 Total Delay Over All Lanes(pcuHr): 8.24

Basic Results Summary

Scenario 10: '2028 PM + Com Dev + Dev' (FG10: '2028 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**83.7%**
EW13 Llanrumney Avenue	**-**	**-**	**-**	**83.7%**
9/1	Llanrumney Ave Ahead	0.2	1.3	24.6%
7/1	Llanrumney Ave Exit Ahead	0.0	0.9	5.2%
4/1	Llanrumney Ave Exit Right Ahead	3.3	15.3	83.7%
3/1	Llanrumney Ave Left Right	3.6	26.1	48.7%
3/2	Llanrumney Ave Right	3.8	26.1	49.7%
1/1	Newport Road (NE) Ahead	2.1	9.1	22.0%
1/2	Newport Road (NE) Ahead	2.5	9.1	24.2%
1/3	Newport Road (NE) Right	0.9	13.8	21.0%
2/1	Newport Road (SW) Ahead	2.4	9.3	25.2%
2/2	Newport Road (SW) Ahead	2.8	9.3	27.3%
10/1	Newport Road Ahead Left	0.7	2.2	58.9%

C1 PRC for Signalled Lanes (%): 81.0 Total Delay for Signalled Lanes (pcuHr): 6.52 Cycle Time (s): 60
PRC Over All Lanes (%): 7.5 Total Delay Over All Lanes(pcuHr): 9.89

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Client:	Cardiff Parkway Developments Ltd
Additional detail:	
File name:	Junction 12 M4 J30.lsg3x
Author:	Phill Ayres
Company:	Arup
Address:	

Basic Results Summary

Network Results

Scenario 1: '2018 Base AM' (FG1: '2018 Base AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**81.6%**
M4 Junction 30	**-**	**-**	**-**	**81.6%**
4/2	M4 E/B Offslip Ahead	1.2	4.4	69.9%
4/1	M4 E/B Offslip Ahead Ahead2	0.8	3.4	60.4%
1/2	M4 W/B Offslip Ahead	11.0	39.6	77.2%
1/1	M4 W/B Offslip Ahead Left	10.8	42.2	79.2%
6/1	M4 W/B Offslip Gyratory Ahead	17.6	19.4	81.3%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	18.8	19.6	81.6%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	0.3	5.8	35.9 : 35.9%
3/2	Malthouse Avenue Ahead	3.0	29.5	30.6%
3/1	Malthouse Avenue Ahead Left	2.4	29.4	26.7%
9/1	Malthouse Avenue Gyratory Ahead	0.2	2.0	16.0%
9/3	Malthouse Avenue Gyratory Right	0.3	2.0	25.7%
9/2	Malthouse Avenue Gyratory Right Ahead	1.1	3.5	33.4%
8/1	Pentwyn Link Rd Gyratory LT Ahead	7.5	37.5	52.8%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	11.1	15.4	76.5 : 76.5%
2/2	Pentwyn Link Road Ahead	11.7	17.0	63.9%
2/1	Pentwyn Link Road Ahead Left	11.1	17.3	64.1%

C1	Stream: 1 PRC for Signalled Lanes (%):	10.3	Total Delay for Signalled Lanes (pcuHr):	20.81	Cycle Time (s):	80
C1	Stream: 2 PRC for Signalled Lanes (%):	17.7	Total Delay for Signalled Lanes (pcuHr):	12.25	Cycle Time (s):	80
C1	Stream: 3 PRC for Signalled Lanes (%):	169.6	Total Delay for Signalled Lanes (pcuHr):	2.98	Cycle Time (s):	80
	PRC Over All Lanes (%):	10.3	Total Delay Over All Lanes(pcuHr):	38.24		

Basic Results Summary

Scenario 2: '2018 Base PM' (FG2: '2018 Base PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**62.1%**
M4 Junction 30	**-**	**-**	**-**	**62.1%**
4/2	M4 E/B Offslip Ahead	3.5	4.1	54.0%
4/1	M4 E/B Offslip Ahead Ahead2	0.3	2.7	34.4%
1/2	M4 W/B Offslip Ahead	2.1	37.1	13.9%
1/1	M4 W/B Offslip Ahead Left	10.0	46.9	60.4%
6/1	M4 W/B Offslip Gyratory Ahead	8.4	9.8	51.8%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	8.2	8.8	55.0%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	0.2	7.7	10.5 : 10.5%
3/2	Malthouse Avenue Ahead	15.9	26.5	62.1%
3/1	Malthouse Avenue Ahead Left	14.2	26.4	60.7%
9/1	Malthouse Avenue Gyratory Ahead	13.7	28.2	61.8%
9/3	Malthouse Avenue Gyratory Right	11.2	26.1	58.6%
9/2	Malthouse Avenue Gyratory Right Ahead	11.9	27.0	57.9%
8/1	Pentwyn Link Rd Gyratory LT Ahead	2.1	43.1	28.5%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	3.7	42.5	41.6 : 41.6%
2/2	Pentwyn Link Road Ahead	15.4	10.1	62.0%
2/1	Pentwyn Link Road Ahead Left	8.8	8.0	46.2%

C1	Stream: 1 PRC for Signalled Lanes (%):	49.1	Total Delay for Signalled Lanes (pcuHr):	8.61	Cycle Time (s):	120
C1	Stream: 2 PRC for Signalled Lanes (%):	45.2	Total Delay for Signalled Lanes (pcuHr):	7.11	Cycle Time (s):	120
C1	Stream: 3 PRC for Signalled Lanes (%):	44.9	Total Delay for Signalled Lanes (pcuHr):	19.83	Cycle Time (s):	120
	PRC Over All Lanes (%):	44.9	Total Delay Over All Lanes(pcuHr):	36.49		

Basic Results Summary

Scenario 3: '2023 AM + Com Dev' (FG3: '2023 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**95.0%**
M4 Junction 30	**-**	**-**	**-**	**95.0%**
4/2	M4 E/B Offslip Ahead	3.6	6.9	79.5%
4/1	M4 E/B Offslip Ahead Ahead2	1.6	5.2	72.4%
1/2	M4 W/B Offslip Ahead	11.5	34.9	74.6%
1/1	M4 W/B Offslip Ahead Left	17.5	58.5	92.6%
6/1	M4 W/B Offslip Gyratory Ahead	29.4	40.6	95.0%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	30.0	39.9	94.8%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	1.3	15.5	60.1 : 60.1%
3/2	Malthouse Avenue Ahead	3.8	39.5	48.0%
3/1	Malthouse Avenue Ahead Left	3.2	39.4	44.3%
9/1	Malthouse Avenue Gyratory Ahead	0.7	3.1	29.7%
9/3	Malthouse Avenue Gyratory Right	0.3	2.0	34.1%
9/2	Malthouse Avenue Gyratory Right Ahead	0.9	2.9	35.5%
8/1	Pentwyn Link Rd Gyratory LT Ahead	8.3	37.0	59.3%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	12.9	25.7	85.2 : 85.2%
2/2	Pentwyn Link Road Ahead	19.8	22.9	83.2%
2/1	Pentwyn Link Road Ahead Left	18.9	23.4	83.2%

C1	Stream: 1 PRC for Signalled Lanes (%):	-5.6	Total Delay for Signalled Lanes (pcuHr):	38.21	Cycle Time (s):	80
C1	Stream: 2 PRC for Signalled Lanes (%):	5.7	Total Delay for Signalled Lanes (pcuHr):	19.45	Cycle Time (s):	80
C1	Stream: 3 PRC for Signalled Lanes (%):	87.5	Total Delay for Signalled Lanes (pcuHr):	4.46	Cycle Time (s):	80
	PRC Over All Lanes (%):	-5.6	Total Delay Over All Lanes(pcuHr):	66.10		

Basic Results Summary

Scenario 4: '2023 PM + Com Dev' (FG4: '2023 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**74.5%**
M4 Junction 30	**-**	**-**	**-**	**74.5%**
4/2	M4 E/B Offslip Ahead	4.4	5.6	63.5%
4/1	M4 E/B Offslip Ahead Ahead2	2.3	4.2	52.4%
1/2	M4 W/B Offslip Ahead	1.8	26.8	10.0%
1/1	M4 W/B Offslip Ahead Left	17.5	41.8	74.5%
6/1	M4 W/B Offslip Gyratory Ahead	15.8	19.3	74.5%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	17.3	19.3	74.4%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	0.3	13.5	16.6 : 16.6%
3/2	Malthouse Avenue Ahead	19.6	35.7	74.5%
3/1	Malthouse Avenue Ahead Left	17.5	35.4	72.6%
9/1	Malthouse Avenue Gyratory Ahead	15.9	26.6	70.2%
9/3	Malthouse Avenue Gyratory Right	9.5	23.9	60.7%
9/2	Malthouse Avenue Gyratory Right Ahead	11.3	24.2	61.8%
8/1	Pentwyn Link Rd Gyratory LT Ahead	2.7	40.6	36.5%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	4.1	52.0	47.3 : 47.3%
2/2	Pentwyn Link Road Ahead	20.5	11.1	72.5%
2/1	Pentwyn Link Road Ahead Left	12.0	8.2	56.8%

C1	Stream: 1 PRC for Signalled Lanes (%):	20.8	Total Delay for Signalled Lanes (pcuHr):	15.74	Cycle Time (s):	120
C1	Stream: 2 PRC for Signalled Lanes (%):	24.2	Total Delay for Signalled Lanes (pcuHr):	8.81	Cycle Time (s):	120
C1	Stream: 3 PRC for Signalled Lanes (%):	20.8	Total Delay for Signalled Lanes (pcuHr):	25.03	Cycle Time (s):	120
	PRC Over All Lanes (%):	20.8	Total Delay Over All Lanes(pcuHr):	51.18		

Basic Results Summary

Scenario 5: '2023 AM + Com Dev + Dev' (FG5: '2023 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**97.4%**
M4 Junction 30	**-**	**-**	**-**	**97.4%**
4/2	M4 E/B Offslip Ahead	3.7	7.9	82.3%
4/1	M4 E/B Offslip Ahead Ahead2	1.7	5.5	74.0%
1/2	M4 W/B Offslip Ahead	11.5	34.9	74.6%
1/1	M4 W/B Offslip Ahead Left	19.1	65.4	94.5%
6/1	M4 W/B Offslip Gyratory Ahead	33.8	51.6	97.4%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	34.6	50.6	97.4%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	1.8	20.5	66.9 : 66.9%
3/2	Malthouse Avenue Ahead	3.3	28.8	32.4%
3/1	Malthouse Avenue Ahead Left	2.7	28.8	29.1%
9/1	Malthouse Avenue Gyratory Ahead	0.6	3.4	33.2%
9/3	Malthouse Avenue Gyratory Right	0.4	2.6	40.0%
9/2	Malthouse Avenue Gyratory Right Ahead	1.3	4.4	40.9%
8/1	Pentwyn Link Rd Gyratory LT Ahead	8.3	41.6	59.3%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	12.8	21.5	84.9 : 84.9%
2/2	Pentwyn Link Road Ahead	20.0	23.2	83.7%
2/1	Pentwyn Link Road Ahead Left	18.9	23.4	83.2%

C1	Stream: 1 PRC for Signalled Lanes (%):	-8.3	Total Delay for Signalled Lanes (pcuHr):	46.75	Cycle Time (s):	80
C1	Stream: 2 PRC for Signalled Lanes (%):	6.0	Total Delay for Signalled Lanes (pcuHr):	19.37	Cycle Time (s):	80
C1	Stream: 3 PRC for Signalled Lanes (%):	119.9	Total Delay for Signalled Lanes (pcuHr):	3.86	Cycle Time (s):	80
	PRC Over All Lanes (%):	-8.3	Total Delay Over All Lanes(pcuHr):	74.69		

Basic Results Summary

Scenario 6: '2023 PM + Com Dev + Dev' (FG6: '2023 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**75.0%**
M4 Junction 30	**-**	**-**	**-**	**75.0%**
4/2	M4 E/B Offslip Ahead	4.9	5.8	63.8%
4/1	M4 E/B Offslip Ahead Ahead2	2.9	4.3	53.3%
1/2	M4 W/B Offslip Ahead	1.8	26.8	9.9%
1/1	M4 W/B Offslip Ahead Left	17.6	42.0	74.8%
6/1	M4 W/B Offslip Gyratory Ahead	15.8	19.5	75.0%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	17.0	19.4	74.7%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	0.3	14.4	16.6 : 16.6%
3/2	Malthouse Avenue Ahead	19.6	35.6	74.3%
3/1	Malthouse Avenue Ahead Left	17.6	35.6	72.8%
9/1	Malthouse Avenue Gyratory Ahead	18.3	27.9	70.9%
9/3	Malthouse Avenue Gyratory Right	11.8	24.9	63.4%
9/2	Malthouse Avenue Gyratory Right Ahead	13.2	25.1	63.9%
8/1	Pentwyn Link Rd Gyratory LT Ahead	3.1	47.5	44.3%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	4.4	58.4	56.2 : 56.2%
2/2	Pentwyn Link Road Ahead	20.0	9.9	73.1%
2/1	Pentwyn Link Road Ahead Left	10.9	6.9	55.4%

C1	Stream: 1 PRC for Signalled Lanes (%):	20.0	Total Delay for Signalled Lanes (pcuHr):	15.90	Cycle Time (s):	120
C1	Stream: 2 PRC for Signalled Lanes (%):	23.1	Total Delay for Signalled Lanes (pcuHr):	8.75	Cycle Time (s):	120
C1	Stream: 3 PRC for Signalled Lanes (%):	21.2	Total Delay for Signalled Lanes (pcuHr):	25.93	Cycle Time (s):	120
	PRC Over All Lanes (%):	20.0	Total Delay Over All Lanes(pcuHr):	52.25		

Basic Results Summary

Scenario 7: '2028 AM + Com Dev' (FG7: '2028 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**96.6%**
M4 Junction 30	**-**	**-**	**-**	**96.6%**
4/2	M4 E/B Offslip Ahead	3.9	7.8	82.0%
4/1	M4 E/B Offslip Ahead Ahead2	1.3	5.3	73.1%
1/2	M4 W/B Offslip Ahead	11.9	35.6	76.0%
1/1	M4 W/B Offslip Ahead Left	18.4	62.9	93.9%
6/1	M4 W/B Offslip Gyratory Ahead	31.8	46.8	96.5%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	32.8	46.6	96.6%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	1.7	20.0	66.5 : 66.5%
3/2	Malthouse Avenue Ahead	3.5	32.7	38.2%
3/1	Malthouse Avenue Ahead Left	2.9	32.6	34.4%
9/1	Malthouse Avenue Gyratory Ahead	0.5	2.5	31.4%
9/3	Malthouse Avenue Gyratory Right	0.4	2.3	38.1%
9/2	Malthouse Avenue Gyratory Right Ahead	1.0	3.1	38.9%
8/1	Pentwyn Link Rd Gyratory LT Ahead	8.5	42.1	60.3%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	13.7	23.5	86.6 : 86.6%
2/2	Pentwyn Link Road Ahead	20.7	23.9	84.6%
2/1	Pentwyn Link Road Ahead Left	19.2	24.1	84.2%

C1	Stream: 1 PRC for Signalled Lanes (%):	-7.3	Total Delay for Signalled Lanes (pcuHr):	43.54	Cycle Time (s):	80
C1	Stream: 2 PRC for Signalled Lanes (%):	4.0	Total Delay for Signalled Lanes (pcuHr):	20.37	Cycle Time (s):	80
C1	Stream: 3 PRC for Signalled Lanes (%):	131.4	Total Delay for Signalled Lanes (pcuHr):	3.91	Cycle Time (s):	80
	PRC Over All Lanes (%):	-7.3	Total Delay Over All Lanes(pcuHr):	72.42		

Basic Results Summary

Scenario 8: '2028 PM + Com Dev' (FG8: '2028 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**75.9%**
M4 Junction 30	**-**	**-**	**-**	**75.9%**
4/2	M4 E/B Offslip Ahead	5.6	6.2	65.3%
4/1	M4 E/B Offslip Ahead Ahead2	3.0	4.4	53.4%
1/2	M4 W/B Offslip Ahead	1.9	26.8	10.3%
1/1	M4 W/B Offslip Ahead Left	17.7	42.1	75.0%
6/1	M4 W/B Offslip Gyratory Ahead	16.4	20.1	75.3%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	17.5	19.6	75.9%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	0.3	16.1	18.1 : 18.1%
3/2	Malthouse Avenue Ahead	20.0	35.1	74.7%
3/1	Malthouse Avenue Ahead Left	17.5	34.5	72.1%
9/1	Malthouse Avenue Gyratory Ahead	18.4	28.2	71.6%
9/3	Malthouse Avenue Gyratory Right	11.3	24.8	63.1%
9/2	Malthouse Avenue Gyratory Right Ahead	13.0	25.3	64.2%
8/1	Pentwyn Link Rd Gyratory LT Ahead	2.9	43.2	40.3%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	4.1	53.9	49.7 : 49.7%
2/2	Pentwyn Link Road Ahead	21.0	10.8	73.3%
2/1	Pentwyn Link Road Ahead Left	11.6	7.8	56.4%

C1	Stream: 1 PRC for Signalled Lanes (%):	18.6	Total Delay for Signalled Lanes (pcuHr):	16.22	Cycle Time (s):	120
C1	Stream: 2 PRC for Signalled Lanes (%):	22.8	Total Delay for Signalled Lanes (pcuHr):	8.91	Cycle Time (s):	120
C1	Stream: 3 PRC for Signalled Lanes (%):	20.5	Total Delay for Signalled Lanes (pcuHr):	25.74	Cycle Time (s):	120
	PRC Over All Lanes (%):	18.6	Total Delay Over All Lanes(pcuHr):	52.63		

Basic Results Summary

Scenario 9: '2028 AM + Com Dev + Dev' (FG9: '2028 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**103.0%**
M4 Junction 30	**-**	**-**	**-**	**103.0%**
4/2	M4 E/B Offslip Ahead	4.7	9.7	85.6%
4/1	M4 E/B Offslip Ahead Ahead2	3.0	7.5	81.2%
1/2	M4 W/B Offslip Ahead	10.8	33.7	71.9%
1/1	M4 W/B Offslip Ahead Left	29.6	117.1	101.6%
6/1	M4 W/B Offslip Gyratory Ahead	52.9	105.4	103.0%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	53.7	101.7	102.8%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	3.4	42.9	81.3 : 81.3%
3/2	Malthouse Avenue Ahead	2.8	22.7	24.7%
3/1	Malthouse Avenue Ahead Left	2.4	22.7	22.3%
9/1	Malthouse Avenue Gyratory Ahead	1.7	5.8	37.3%
9/3	Malthouse Avenue Gyratory Right	1.8	5.1	45.2%
9/2	Malthouse Avenue Gyratory Right Ahead	3.0	6.9	45.4%
8/1	Pentwyn Link Rd Gyratory LT Ahead	8.3	38.7	61.3%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	12.4	25.2	85.6 : 83.7%
2/2	Pentwyn Link Road Ahead	18.4	20.4	80.2%
2/1	Pentwyn Link Road Ahead Left	17.0	20.5	79.6%

C1	Stream: 1 PRC for Signalled Lanes (%):	-14.4	Total Delay for Signalled Lanes (pcuHr):	91.80	Cycle Time (s):	80
C1	Stream: 2 PRC for Signalled Lanes (%):	5.1	Total Delay for Signalled Lanes (pcuHr):	17.80	Cycle Time (s):	80
C1	Stream: 3 PRC for Signalled Lanes (%):	98.3	Total Delay for Signalled Lanes (pcuHr):	4.22	Cycle Time (s):	80
	PRC Over All Lanes (%):	-14.4	Total Delay Over All Lanes(pcuHr):	121.01		

Basic Results Summary

Scenario 10: '2028 PM + Com Dev + Dev' (FG10: '2028 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**75.8%**
M4 Junction 30	**-**	**-**	**-**	**75.8%**
4/2	M4 E/B Offslip Ahead	5.3	6.1	64.5%
4/1	M4 E/B Offslip Ahead Ahead2	2.9	4.5	54.0%
1/2	M4 W/B Offslip Ahead	1.9	26.8	10.3%
1/1	M4 W/B Offslip Ahead Left	17.9	42.5	75.8%
6/1	M4 W/B Offslip Gyratory Ahead	15.8	19.3	74.4%
6/2	M4 W/B Offslip Gyratory Right Right2 Ahead	17.5	19.4	74.9%
5/1+5/2	Maes-Y-Bryn Road Ahead Ahead2	0.3	16.0	18.2 : 18.2%
3/2	Malthouse Avenue Ahead	20.0	36.1	75.2%
3/1	Malthouse Avenue Ahead Left	17.6	35.6	72.8%
9/1	Malthouse Avenue Gyratory Ahead	19.7	29.9	74.2%
9/3	Malthouse Avenue Gyratory Right	13.1	26.5	66.8%
9/2	Malthouse Avenue Gyratory Right Ahead	14.4	26.3	66.7%
8/1	Pentwyn Link Rd Gyratory LT Ahead	3.5	53.8	52.2%
7/1+7/2	Pentwyn Link Rd Gyratory Right Ahead	4.9	67.3	65.1 : 65.1%
2/2	Pentwyn Link Road Ahead	21.1	9.6	75.3%
2/1	Pentwyn Link Road Ahead Left	10.4	6.3	55.6%

C1	Stream: 1 PRC for Signalled Lanes (%):	18.7	Total Delay for Signalled Lanes (pcuHr):	16.04	Cycle Time (s):	120
C1	Stream: 2 PRC for Signalled Lanes (%):	19.6	Total Delay for Signalled Lanes (pcuHr):	9.31	Cycle Time (s):	120
C1	Stream: 3 PRC for Signalled Lanes (%):	19.7	Total Delay for Signalled Lanes (pcuHr):	27.62	Cycle Time (s):	120
	PRC Over All Lanes (%):	18.7	Total Delay Over All Lanes(pcuHr):	54.70		

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Client:	Cardiff Parkway Developments
Additional detail:	
File name:	Junction 13 A48_Southern Way Roundabout.lsg3x
Author:	Phill Ayres
Company:	Arup
Address:	

Basic Results Summary

Network Results

Scenario 1: '2018 Base AM' (FG1: '2018 Base AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**94.2%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**94.2%**
7/1	A48 N/B Offslip Gyratory Ahead	9.8	17.1	69.7%
7/2	A48 N/B Offslip Gyratory Right	9.2	17.4	68.6%
7/3	A48 N/B Offslip Gyratory Right	11.6	20.6	77.6%
3/2	A48 N/B Onslip Ahead	9.2	29.9	77.6%
3/1	A48 N/B Onslip Ahead Ahead2	8.0	26.9	71.4%
1/2	A48 S/B Offslip Ahead Ahead2	1.6	4.8	37.3%
4/2	Circle Way Ahead	7.4	28.9	70.9%
4/1	Circle Way Ahead Ahead2	6.7	28.0	67.6%
8/1	Circle Way Gyratory Ahead	1.8	6.9	62.7%
8/3	Circle Way Gyratory Right	9.1	21.7	51.0%
8/2	Circle Way Gyratory Right Ahead	5.2	13.5	82.2%
2/3	Southern Way Ahead	1.3	6.5	72.6%
2/2+2/1	Southern Way Ahead Ahead2	10.5	11.8	89.0 : 94.2%

C1	Stream: 1 PRC for Signalled Lanes (%):	9.5	Total Delay for Signalled Lanes (pcuHr):	13.91	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	16.0	Total Delay for Signalled Lanes (pcuHr):	18.29	Cycle Time (s):	60
	PRC Over All Lanes (%):	-4.6	Total Delay Over All Lanes(pcuHr):	39.34		

Basic Results Summary

Scenario 2: '2018 Base PM' (FG2: '2018 Base PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**85.3%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**85.3%**
7/1	A48 N/B Offslip Gyratory Ahead	8.8	13.6	65.1%
7/2	A48 N/B Offslip Gyratory Right	13.4	21.3	82.0%
7/3	A48 N/B Offslip Gyratory Right	11.5	18.3	75.9%
3/2	A48 N/B Onslip Ahead	10.3	37.7	84.0%
3/1	A48 N/B Onslip Ahead Ahead2	8.7	32.7	78.1%
1/2	A48 S/B Offslip Ahead Ahead2	3.4	7.4	57.9%
4/2	Circle Way Ahead	8.2	36.1	79.0%
4/1	Circle Way Ahead Ahead2	7.7	35.0	76.9%
8/1	Circle Way Gyratory Ahead	3.0	9.1	75.2%
8/3	Circle Way Gyratory Right	8.8	18.4	46.8%
8/2	Circle Way Gyratory Right Ahead	6.5	13.9	83.6%
2/3	Southern Way Ahead	1.8	8.6	78.8%
2/2+2/1	Southern Way Ahead Ahead2	2.5	5.9	85.3 : 81.6%

C1	Stream: 1 PRC for Signalled Lanes (%):	7.6	Total Delay for Signalled Lanes (pcuHr):	16.18	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	7.1	Total Delay for Signalled Lanes (pcuHr):	20.74	Cycle Time (s):	60
	PRC Over All Lanes (%):	5.5	Total Delay Over All Lanes(pcuHr):	42.22		

Basic Results Summary

Scenario 3: '2023 AM + Com Dev' (FG3: '2023 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**112.9%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**112.9%**
7/1	A48 N/B Offslip Gyratory Ahead	12.0	16.8	76.1%
7/2	A48 N/B Offslip Gyratory Right	3.2	10.0	32.4%
7/3	A48 N/B Offslip Gyratory Right	25.3	47.4	96.7%
3/2	A48 N/B Onslip Ahead	13.6	56.7	92.9%
3/1	A48 N/B Onslip Ahead Ahead2	11.4	45.9	88.6%
1/2	A48 S/B Offslip Ahead Ahead2	2.1	5.4	40.3%
4/2	Circle Way Ahead	31.3	227.2	109.3%
4/1	Circle Way Ahead Ahead2	30.3	226.7	109.2%
8/1	Circle Way Gyratory Ahead	0.4	2.7	27.4%
8/3	Circle Way Gyratory Right	9.1	18.0	43.7%
8/2	Circle Way Gyratory Right Ahead	8.4	19.5	92.4%
2/3	Southern Way Ahead	100.6	166.0	108.1%
2/2+2/1	Southern Way Ahead Ahead2	150.5	228.4	112.9 : 112.9%

C1	Stream: 1 PRC for Signalled Lanes (%):	-21.5	Total Delay for Signalled Lanes (pcuHr):	62.80	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-7.4	Total Delay for Signalled Lanes (pcuHr):	32.44	Cycle Time (s):	60
	PRC Over All Lanes (%):	-25.4	Total Delay Over All Lanes(pcuHr):	244.02		

Basic Results Summary

Scenario 4: '2023 PM + Com Dev' (FG4: '2023 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**94.9%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**94.9%**
7/1	A48 N/B Offslip Gyratory Ahead	18.2	28.7	90.7%
7/2	A48 N/B Offslip Gyratory Right	13.2	20.8	81.1%
7/3	A48 N/B Offslip Gyratory Right	13.2	20.9	81.2%
3/2	A48 N/B Onslip Ahead	11.6	42.9	87.9%
3/1	A48 N/B Onslip Ahead Ahead2	9.3	34.3	80.3%
1/2	A48 S/B Offslip Ahead Ahead2	3.9	8.6	62.9%
4/2	Circle Way Ahead	9.1	39.5	82.8%
4/1	Circle Way Ahead Ahead2	8.6	38.4	81.1%
8/1	Circle Way Gyratory Ahead	2.9	8.9	74.4%
8/3	Circle Way Gyratory Right	9.2	18.6	48.9%
8/2	Circle Way Gyratory Right Ahead	8.1	17.7	88.6%
2/3	Southern Way Ahead	2.7	12.0	85.0%
2/2+2/1	Southern Way Ahead Ahead2	8.0	16.3	94.9 : 94.9%

C1	Stream: 1 PRC for Signalled Lanes (%):	1.6	Total Delay for Signalled Lanes (pcuHr):	18.71	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-0.8	Total Delay for Signalled Lanes (pcuHr):	27.64	Cycle Time (s):	60
	PRC Over All Lanes (%):	-5.5	Total Delay Over All Lanes(pcuHr):	58.24		

Basic Results Summary

Scenario 5: '2023 AM + Com Dev + Dev' (FG5: '2023 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**113.1%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**113.1%**
7/1	A48 N/B Offslip Gyratory Ahead	12.4	17.1	76.9%
7/2	A48 N/B Offslip Gyratory Right	3.6	10.2	35.5%
7/3	A48 N/B Offslip Gyratory Right	24.6	45.4	96.2%
3/2	A48 N/B Onslip Ahead	14.1	59.8	93.8%
3/1	A48 N/B Onslip Ahead Ahead2	11.0	44.3	87.7%
1/2	A48 S/B Offslip Ahead Ahead2	2.2	5.7	42.4%
4/2	Circle Way Ahead	21.8	143.2	103.0%
4/1	Circle Way Ahead Ahead2	34.4	236.2	110.2%
8/1	Circle Way Gyratory Ahead	0.4	2.9	30.8%
8/3	Circle Way Gyratory Right	9.2	19.1	45.3%
8/2	Circle Way Gyratory Right Ahead	10.0	23.8	94.1%
2/3	Southern Way Ahead	100.1	165.9	108.1%
2/2+2/1	Southern Way Ahead Ahead2	153.7	231.4	113.1 : 113.1%

C1	Stream: 1 PRC for Signalled Lanes (%):	-22.4	Total Delay for Signalled Lanes (pcuHr):	58.25	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-6.9	Total Delay for Signalled Lanes (pcuHr):	32.29	Cycle Time (s):	60
	PRC Over All Lanes (%):	-25.7	Total Delay Over All Lanes(pcuHr):	242.46		

Basic Results Summary

Scenario 6: '2023 PM + Com Dev + Dev' (FG6: '2023 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**95.3%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**95.3%**
7/1	A48 N/B Offslip Gyratory Ahead	19.8	30.3	92.2%
7/2	A48 N/B Offslip Gyratory Right	12.6	19.0	79.3%
7/3	A48 N/B Offslip Gyratory Right	12.4	18.7	78.5%
3/2	A48 N/B Onslip Ahead	12.9	52.9	91.6%
3/1	A48 N/B Onslip Ahead Ahead2	10.5	42.4	86.5%
1/2	A48 S/B Offslip Ahead Ahead2	4.5	9.7	68.2%
4/2	Circle Way Ahead	9.1	39.7	83.0%
4/1	Circle Way Ahead Ahead2	9.0	40.4	83.1%
8/1	Circle Way Gyratory Ahead	3.4	9.8	75.1%
8/3	Circle Way Gyratory Right	9.0	16.5	48.2%
8/2	Circle Way Gyratory Right Ahead	8.8	18.8	89.1%
2/3	Southern Way Ahead	2.9	12.7	85.7%
2/2+2/1	Southern Way Ahead Ahead2	8.5	17.2	95.3 : 95.3%

C1	Stream: 1 PRC for Signalled Lanes (%):	1.0	Total Delay for Signalled Lanes (pcuHr):	19.31	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-2.4	Total Delay for Signalled Lanes (pcuHr):	30.08	Cycle Time (s):	60
	PRC Over All Lanes (%):	-5.9	Total Delay Over All Lanes(pcuHr):	62.20		

Basic Results Summary

Scenario 7: '2028 AM + Com Dev' (FG7: '2028 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**114.8%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**114.8%**
7/1	A48 N/B Offslip Gyratory Ahead	12.1	16.9	76.5%
7/2	A48 N/B Offslip Gyratory Right	3.6	10.2	34.8%
7/3	A48 N/B Offslip Gyratory Right	25.1	46.8	96.5%
3/2	A48 N/B Onslip Ahead	15.8	68.4	95.7%
3/1	A48 N/B Onslip Ahead Ahead2	11.6	47.0	89.1%
1/2	A48 S/B Offslip Ahead Ahead2	2.1	5.6	41.4%
4/2	Circle Way Ahead	35.1	254.1	111.4%
4/1	Circle Way Ahead Ahead2	34.2	254.2	111.3%
8/1	Circle Way Gyratory Ahead	0.4	2.8	29.5%
8/3	Circle Way Gyratory Right	9.4	18.1	45.0%
8/2	Circle Way Gyratory Right Ahead	8.0	18.6	92.0%
2/3	Southern Way Ahead	102.2	171.1	108.5%
2/2+2/1	Southern Way Ahead Ahead2	165.0	254.3	114.8 : 114.8%

C1	Stream: 1 PRC for Signalled Lanes (%):	-23.7	Total Delay for Signalled Lanes (pcuHr):	70.21	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-7.3	Total Delay for Signalled Lanes (pcuHr):	34.57	Cycle Time (s):	60
	PRC Over All Lanes (%):	-27.5	Total Delay Over All Lanes(pcuHr):	269.57		

Basic Results Summary

Scenario 8: '2028 PM + Com Dev' (FG8: '2028 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**96.3%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**96.3%**
7/1	A48 N/B Offslip Gyratory Ahead	19.2	31.0	92.0%
7/2	A48 N/B Offslip Gyratory Right	13.5	21.5	82.3%
7/3	A48 N/B Offslip Gyratory Right	13.9	21.9	82.9%
3/2	A48 N/B Onslip Ahead	12.3	46.3	89.7%
3/1	A48 N/B Onslip Ahead Ahead2	9.5	35.2	81.5%
1/2	A48 S/B Offslip Ahead Ahead2	4.1	9.2	64.9%
4/2	Circle Way Ahead	9.4	41.0	84.1%
4/1	Circle Way Ahead Ahead2	8.9	40.0	82.7%
8/1	Circle Way Gyratory Ahead	3.2	9.6	75.5%
8/3	Circle Way Gyratory Right	9.4	17.6	50.0%
8/2	Circle Way Gyratory Right Ahead	8.7	20.0	90.2%
2/3	Southern Way Ahead	3.2	13.7	87.0%
2/2+2/1	Southern Way Ahead Ahead2	11.1	20.1	96.3 : 96.3%

C1	Stream: 1 PRC for Signalled Lanes (%):	-0.2	Total Delay for Signalled Lanes (pcuHr):	20.06	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-2.2	Total Delay for Signalled Lanes (pcuHr):	29.76	Cycle Time (s):	60
	PRC Over All Lanes (%):	-7.0	Total Delay Over All Lanes(pcuHr):	64.28		

Basic Results Summary

Scenario 9: '2028 AM + Com Dev + Dev' (FG9: '2028 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**115.2%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**115.2%**
7/1	A48 N/B Offslip Gyratory Ahead	12.6	17.5	77.5%
7/2	A48 N/B Offslip Gyratory Right	4.2	10.6	39.1%
7/3	A48 N/B Offslip Gyratory Right	24.1	43.9	95.9%
3/2	A48 N/B Onslip Ahead	17.9	79.8	97.7%
3/1	A48 N/B Onslip Ahead Ahead2	10.9	43.5	87.2%
1/2	A48 S/B Offslip Ahead Ahead2	2.1	5.8	44.5%
4/2	Circle Way Ahead	11.5	55.5	90.9%
4/1	Circle Way Ahead Ahead2	19.4	107.1	100.3%
8/1	Circle Way Gyratory Ahead	0.9	4.4	36.0%
8/3	Circle Way Gyratory Right	9.6	18.6	49.9%
8/2	Circle Way Gyratory Right Ahead	19.5	44.5	98.3%
2/3	Southern Way Ahead	103.2	176.5	108.8%
2/2+2/1	Southern Way Ahead Ahead2	170.6	260.0	115.2 : 115.2%

C1	Stream: 1 PRC for Signalled Lanes (%):	-11.4	Total Delay for Signalled Lanes (pcuHr):	38.33	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-8.5	Total Delay for Signalled Lanes (pcuHr):	35.34	Cycle Time (s):	60
	PRC Over All Lanes (%):	-28.0	Total Delay Over All Lanes(pcuHr):	245.71		

Basic Results Summary

Scenario 10: '2028 PM + Com Dev + Dev' (FG10: '2028 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**95.9%**
A48/Southern Way Roundabout	**-**	**-**	**-**	**95.9%**
7/1	A48 N/B Offslip Gyratory Ahead	21.2	33.4	93.5%
7/2	A48 N/B Offslip Gyratory Right	12.6	19.0	79.2%
7/3	A48 N/B Offslip Gyratory Right	12.5	18.9	79.0%
3/2	A48 N/B Onslip Ahead	13.7	57.3	93.0%
3/1	A48 N/B Onslip Ahead Ahead2	11.2	45.3	88.2%
1/2	A48 S/B Offslip Ahead Ahead2	4.7	10.3	70.3%
4/2	Circle Way Ahead	9.5	41.5	84.5%
4/1	Circle Way Ahead Ahead2	9.3	41.8	84.3%
8/1	Circle Way Gyratory Ahead	3.6	10.1	75.0%
8/3	Circle Way Gyratory Right	9.2	15.6	48.9%
8/2	Circle Way Gyratory Right Ahead	9.2	20.1	89.9%
2/3	Southern Way Ahead	3.0	13.4	86.5%
2/2+2/1	Southern Way Ahead Ahead2	10.5	19.0	95.9 : 95.9%

C1	Stream: 1 PRC for Signalled Lanes (%):	0.1	Total Delay for Signalled Lanes (pcuHr):	20.23	Cycle Time (s):	60
C1	Stream: 2 PRC for Signalled Lanes (%):	-3.9	Total Delay for Signalled Lanes (pcuHr):	32.37	Cycle Time (s):	60
	PRC Over All Lanes (%):	-6.6	Total Delay Over All Lanes(pcuHr):	66.68		

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Client:	Cardiff Parkway Developments
Additional detail:	
File name:	Junction 14 Southern Way_Newport Road with Designated Lane.lsg3x
Author:	Phill Ayres
Company:	Arup
Address:	

Basic Results Summary

Network Results

Scenario 1: '2023 AM + Com Dev' (FG3: '2023 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**95.1%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**95.1%**
13/1	A4161 Ahead	0.3	1.4	34.5%
13/3	A4161 Ahead	0.1	1.1	13.6%
13/2	A4161 Ahead Ahead2	0.1	1.2	21.9%
2/2	A4161 Newport Road Ahead	0.2	2.7	28.2%
2/1	A4161 Newport Road Ahead Ahead2	0.3	2.9	33.4%
11/1	A4232 Ahead	8.6	8.9	61.7%
11/2	A4232 Ahead	6.0	7.4	49.1%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	33.1	9.8%
7/1	A4232 Offslip Gyratory Ahead	5.4	28.1	58.7%
7/2	A4232 Offslip Gyratory Right Ahead	4.4	26.7	51.5%
14/1	A4232 On Slip	0.3	1.5	35.6%
14/2	A4232 On Slip	0.4	1.7	42.7%
3/2	A4232 Southern Way Offslip Ahead	3.7	9.6	59.3%
3/1	A4232 Southern Way Offslip Ahead Left	5.7	12.7	76.2%
10/1	A4232 Southern Way Onslip Ahead	18.3	53.3	95.1%
8/2	B4487 Newport Rd Exit	0.1	1.9	22.3%
4/1	B4487 Newport Rd Gyratory Right	2.0	10.6	53.2%
4/2	B4487 Newport Rd Gyratory Right	6.7	17.4	81.5%
1/1	B4487 Newport Road Ahead	0.7	2.1	57.6%
1/2	B4487 Newport Road Ahead	12.7	29.1	82.1%

C1	Stream: 1 PRC for Signalled Lanes (%):	18.0	Total Delay for Signalled Lanes (pcuHr):	9.12	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	9.6	Total Delay for Signalled Lanes (pcuHr):	9.79	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	45.9	Total Delay for Signalled Lanes (pcuHr):	3.61	Cycle Time (s):	64
	PRC Over All Lanes (%):	-5.7	Total Delay Over All Lanes(pcuHr):	34.65		

Basic Results Summary

Scenario 2: '2023 PM + Com Dev' (FG4: '2023 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**81.6%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**81.6%**
13/1	A4161 Ahead	0.3	1.5	37.3%
13/3	A4161 Ahead	0.2	1.3	27.5%
13/2	A4161 Ahead Ahead2	0.4	1.7	43.5%
2/2	A4161 Newport Road Ahead	0.5	3.7	51.9%
2/1	A4161 Newport Road Ahead Ahead2	1.0	4.3	58.5%
11/1	A4232 Ahead	6.7	7.8	53.2%
11/2	A4232 Ahead	6.1	7.5	50.3%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	32.9	8.1%
7/1	A4232 Offslip Gyratory Ahead	11.5	30.5	81.6%
7/2	A4232 Offslip Gyratory Right Ahead	10.2	28.8	77.9%
14/1	A4232 On Slip	0.3	1.6	38.4%
14/2	A4232 On Slip	0.2	1.4	29.3%
3/2	A4232 Southern Way Offslip Ahead	6.6	19.0	76.8%
3/1	A4232 Southern Way Offslip Ahead Left	7.0	20.5	80.2%
10/1	A4232 Southern Way Onslip Ahead	4.9	7.9	43.6%
8/2	B4487 Newport Rd Exit	6.2	3.2	46.8%
4/1	B4487 Newport Rd Gyratory Right	0.2	3.0	23.3%
4/2	B4487 Newport Rd Gyratory Right	1.4	7.0	72.1%
1/1	B4487 Newport Road Ahead	0.4	1.7	45.5%
1/2	B4487 Newport Road Ahead	4.8	22.4	47.8%

C1	Stream: 1 PRC for Signalled Lanes (%):	10.4	Total Delay for Signalled Lanes (pcuHr):	17.19	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	24.8	Total Delay for Signalled Lanes (pcuHr):	3.45	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	69.0	Total Delay for Signalled Lanes (pcuHr):	3.13	Cycle Time (s):	64
	PRC Over All Lanes (%):	10.4	Total Delay Over All Lanes(pcuHr):	27.94		

Basic Results Summary

Scenario 3: '2023 AM + Com Dev + Dev' (FG5: '2023 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**95.3%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**95.3%**
13/1	A4161 Ahead	0.3	1.4	34.8%
13/3	A4161 Ahead	0.1	1.1	13.8%
13/2	A4161 Ahead Ahead2	0.1	1.2	21.9%
2/2	A4161 Newport Road Ahead	0.2	2.7	28.6%
2/1	A4161 Newport Road Ahead Ahead2	0.2	2.9	33.0%
11/1	A4232 Ahead	8.7	9.0	62.1%
11/2	A4232 Ahead	5.9	7.3	48.9%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	33.1	9.8%
7/1	A4232 Offslip Gyratory Ahead	5.2	28.0	58.2%
7/2	A4232 Offslip Gyratory Right Ahead	4.5	26.8	52.1%
14/1	A4232 On Slip	0.3	1.5	35.8%
14/2	A4232 On Slip	0.4	1.7	42.9%
3/2	A4232 Southern Way Offslip Ahead	3.7	9.6	59.0%
3/1	A4232 Southern Way Offslip Ahead Left	5.7	12.8	76.7%
10/1	A4232 Southern Way Onslip Ahead	18.4	53.9	95.3%
8/2	B4487 Newport Rd Exit	0.1	1.9	22.5%
4/1	B4487 Newport Rd Gyratory Right	2.1	10.7	53.8%
4/2	B4487 Newport Rd Gyratory Right	6.6	17.2	81.1%
1/1	B4487 Newport Road Ahead	0.7	2.1	57.6%
1/2	B4487 Newport Road Ahead	12.7	29.1	82.1%

C1	Stream: 1 PRC for Signalled Lanes (%):	17.4	Total Delay for Signalled Lanes (pcuHr):	9.15	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	9.6	Total Delay for Signalled Lanes (pcuHr):	9.76	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	45.0	Total Delay for Signalled Lanes (pcuHr):	3.63	Cycle Time (s):	64
	PRC Over All Lanes (%):	-5.8	Total Delay Over All Lanes(pcuHr):	34.78		

Basic Results Summary

Scenario 4: '2023 PM + Com Dev + Dev' (FG6: '2023 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**81.6%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**81.6%**
13/1	A4161 Ahead	0.3	1.5	37.3%
13/3	A4161 Ahead	0.2	1.3	27.5%
13/2	A4161 Ahead Ahead2	0.4	1.7	43.5%
2/2	A4161 Newport Road Ahead	0.5	3.7	51.9%
2/1	A4161 Newport Road Ahead Ahead2	1.0	4.3	58.5%
11/1	A4232 Ahead	6.7	7.8	53.0%
11/2	A4232 Ahead	6.2	7.6	51.2%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	32.9	8.1%
7/1	A4232 Offslip Gyratory Ahead	11.5	30.5	81.6%
7/2	A4232 Offslip Gyratory Right Ahead	10.1	28.5	77.9%
14/1	A4232 On Slip	0.3	1.6	38.4%
14/2	A4232 On Slip	0.2	1.4	29.3%
3/2	A4232 Southern Way Offslip Ahead	6.7	19.4	77.9%
3/1	A4232 Southern Way Offslip Ahead Left	7.0	20.4	80.0%
10/1	A4232 Southern Way Onslip Ahead	4.9	8.1	43.6%
8/2	B4487 Newport Rd Exit	6.2	3.2	46.8%
4/1	B4487 Newport Rd Gyratory Right	0.3	3.2	22.4%
4/2	B4487 Newport Rd Gyratory Right	1.4	6.7	71.0%
1/1	B4487 Newport Road Ahead	0.4	1.7	45.5%
1/2	B4487 Newport Road Ahead	5.0	23.8	50.2%

C1	Stream: 1 PRC for Signalled Lanes (%):	10.4	Total Delay for Signalled Lanes (pcuHr):	17.25	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	26.8	Total Delay for Signalled Lanes (pcuHr):	3.54	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	69.7	Total Delay for Signalled Lanes (pcuHr):	3.15	Cycle Time (s):	64
	PRC Over All Lanes (%):	10.4	Total Delay Over All Lanes(pcuHr):	28.14		

Basic Results Summary

Scenario 5: '2028 AM + Com Dev' (FG7: '2028 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**96.9%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**96.9%**
13/1	A4161 Ahead	0.3	1.5	35.1%
13/3	A4161 Ahead	0.1	1.1	14.2%
13/2	A4161 Ahead Ahead2	0.1	1.2	21.9%
2/2	A4161 Newport Road Ahead	0.2	2.8	29.6%
2/1	A4161 Newport Road Ahead Ahead2	0.3	3.0	33.4%
11/1	A4232 Ahead	9.1	9.2	63.4%
11/2	A4232 Ahead	6.0	7.4	49.4%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	33.1	9.8%
7/1	A4232 Offslip Gyratory Ahead	5.8	32.8	65.9%
7/2	A4232 Offslip Gyratory Right Ahead	5.1	31.2	60.6%
14/1	A4232 On Slip	0.3	1.5	36.2%
14/2	A4232 On Slip	0.4	1.8	43.4%
3/2	A4232 Southern Way Offslip Ahead	2.9	7.6	56.4%
3/1	A4232 Southern Way Offslip Ahead Left	5.3	10.3	74.3%
10/1	A4232 Southern Way Onslip Ahead	20.3	62.5	96.9%
8/2	B4487 Newport Rd Exit	0.2	2.0	23.3%
4/1	B4487 Newport Rd Gyratory Right	2.6	12.5	55.3%
4/2	B4487 Newport Rd Gyratory Right	5.9	19.1	81.8%
1/1	B4487 Newport Road Ahead	0.7	2.2	58.6%
1/2	B4487 Newport Road Ahead	13.1	30.3	83.6%

C1	Stream: 1 PRC for Signalled Lanes (%):	21.2	Total Delay for Signalled Lanes (pcuHr):	9.10	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	7.6	Total Delay for Signalled Lanes (pcuHr):	10.72	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	41.9	Total Delay for Signalled Lanes (pcuHr):	3.74	Cycle Time (s):	64
	PRC Over All Lanes (%):	-7.7	Total Delay Over All Lanes(pcuHr):	37.65		

Basic Results Summary

Scenario 6: '2028 PM + Com Dev' (FG8: '2028 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**82.8%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**82.8%**
13/1	A4161 Ahead	0.3	1.5	37.9%
13/3	A4161 Ahead	0.2	1.3	28.0%
13/2	A4161 Ahead Ahead2	0.4	1.7	44.1%
2/2	A4161 Newport Road Ahead	0.6	3.8	52.9%
2/1	A4161 Newport Road Ahead Ahead2	1.1	4.4	59.5%
11/1	A4232 Ahead	6.7	7.8	53.5%
11/2	A4232 Ahead	6.5	7.6	51.8%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	32.9	8.1%
7/1	A4232 Offslip Gyratory Ahead	11.8	31.5	82.8%
7/2	A4232 Offslip Gyratory Right Ahead	10.4	29.4	79.3%
14/1	A4232 On Slip	0.3	1.6	39.0%
14/2	A4232 On Slip	0.2	1.4	29.8%
3/2	A4232 Southern Way Offslip Ahead	6.8	19.8	78.7%
3/1	A4232 Southern Way Offslip Ahead Left	7.2	20.8	80.9%
10/1	A4232 Southern Way Onslip Ahead	5.0	8.5	44.4%
8/2	B4487 Newport Rd Exit	6.5	3.3	47.6%
4/1	B4487 Newport Rd Gyratory Right	0.3	3.0	21.7%
4/2	B4487 Newport Rd Gyratory Right	1.3	6.2	69.7%
1/1	B4487 Newport Road Ahead	0.4	1.7	46.3%
1/2	B4487 Newport Road Ahead	5.2	25.4	53.7%

C1	Stream: 1 PRC for Signalled Lanes (%):	8.7	Total Delay for Signalled Lanes (pcuHr):	17.95	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	29.2	Total Delay for Signalled Lanes (pcuHr):	3.63	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	68.3	Total Delay for Signalled Lanes (pcuHr):	3.21	Cycle Time (s):	64
	PRC Over All Lanes (%):	8.7	Total Delay Over All Lanes(pcuHr):	29.16		

Basic Results Summary

Scenario 7: '2028 AM + Com Dev + Dev' (FG9: '2028 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**97.3%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**97.3%**
13/1	A4161 Ahead	0.3	1.5	35.7%
13/3	A4161 Ahead	0.1	1.1	14.2%
13/2	A4161 Ahead Ahead2	0.1	1.2	22.6%
2/2	A4161 Newport Road Ahead	0.2	2.8	29.6%
2/1	A4161 Newport Road Ahead Ahead2	0.3	3.0	33.4%
11/1	A4232 Ahead	9.1	9.2	63.5%
11/2	A4232 Ahead	6.0	7.4	49.4%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	33.1	9.8%
7/1	A4232 Offslip Gyratory Ahead	5.8	32.8	65.9%
7/2	A4232 Offslip Gyratory Right Ahead	5.1	31.4	60.6%
14/1	A4232 On Slip	0.3	1.5	36.8%
14/2	A4232 On Slip	0.4	1.8	44.1%
3/2	A4232 Southern Way Offslip Ahead	3.1	7.9	56.5%
3/1	A4232 Southern Way Offslip Ahead Left	4.9	10.6	74.4%
10/1	A4232 Southern Way Onslip Ahead	20.8	64.9	97.3%
8/2	B4487 Newport Rd Exit	0.2	2.0	23.3%
4/1	B4487 Newport Rd Gyratory Right	3.2	10.3	55.4%
4/2	B4487 Newport Rd Gyratory Right	11.9	18.6	81.9%
1/1	B4487 Newport Road Ahead	0.6	2.1	56.4%
1/2	B4487 Newport Road Ahead	13.1	30.3	83.6%

C1	Stream: 1 PRC for Signalled Lanes (%):	21.0	Total Delay for Signalled Lanes (pcuHr):	9.24	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	7.6	Total Delay for Signalled Lanes (pcuHr):	10.36	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	41.8	Total Delay for Signalled Lanes (pcuHr):	3.75	Cycle Time (s):	64
	PRC Over All Lanes (%):	-8.1	Total Delay Over All Lanes(pcuHr):	37.86		

Basic Results Summary

Scenario 8: '2028 PM + Com Dev + Dev' (FG10: '2028 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**82.8%**
Junction 14: Southern Way-Newport Road	**-**	**-**	**-**	**82.8%**
13/1	A4161 Ahead	0.3	1.5	37.1%
13/3	A4161 Ahead	0.2	1.3	28.0%
13/2	A4161 Ahead Ahead2	0.4	1.7	43.4%
2/2	A4161 Newport Road Ahead	0.6	3.8	52.9%
2/1	A4161 Newport Road Ahead Ahead2	1.1	4.4	59.5%
11/1	A4232 Ahead	6.8	7.9	53.8%
11/2	A4232 Ahead	6.6	7.7	52.4%
12/1	A4232 Off Slip Bus Lane Ahead	0.4	32.9	8.1%
7/1	A4232 Offslip Gyratory Ahead	11.8	31.5	82.8%
7/2	A4232 Offslip Gyratory Right Ahead	10.4	29.4	79.3%
14/1	A4232 On Slip	0.3	1.6	38.2%
14/2	A4232 On Slip	0.2	1.4	29.0%
3/2	A4232 Southern Way Offslip Ahead	7.0	20.1	79.4%
3/1	A4232 Southern Way Offslip Ahead Left	7.3	21.2	81.6%
10/1	A4232 Southern Way Onslip Ahead	5.0	8.4	44.2%
8/2	B4487 Newport Rd Exit	6.5	3.3	47.6%
4/1	B4487 Newport Rd Gyratory Right	0.3	3.1	22.3%
4/2	B4487 Newport Rd Gyratory Right	1.3	6.4	70.4%
1/1	B4487 Newport Road Ahead	0.4	1.7	46.3%
1/2	B4487 Newport Road Ahead	5.2	25.4	53.7%

C1	Stream: 1 PRC for Signalled Lanes (%):	8.7	Total Delay for Signalled Lanes (pcuHr):	18.17	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	27.9	Total Delay for Signalled Lanes (pcuHr):	3.68	Cycle Time (s):	64
C1	Stream: 3 PRC for Signalled Lanes (%):	67.1	Total Delay for Signalled Lanes (pcuHr):	3.26	Cycle Time (s):	64
	PRC Over All Lanes (%):	8.7	Total Delay Over All Lanes(pcuHr):	29.42		

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Client:	Cardiff Parkway Developments
Additional detail:	
File name:	Junction 17 B4487_Ty-Mawr Road.lsg3x
Author:	Phill Ayres
Company:	Arup
Address:	

Basic Results Summary

Network Results

Scenario 1: '2018 Base AM' (FG1: '2018 Base AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**52.2%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**52.2%**
1/2	Newport Road (NE) Ahead	8.8	9.6	52.2%
1/1	Newport Road (NE) Left Ahead	7.9	9.6	50.4%
2/1	Newport Road (SW) Ahead	3.6	4.3	21.0%
2/2	Newport Road (SW) Ahead	4.3	4.3	23.0%
2/3	Newport Road (SW) Right	3.0	35.6	50.7%

C1	PRC for Signalled Lanes (%):	72.3	Total Delay for Signalled Lanes (pcuHr):	5.87	Cycle Time (s):	190
	PRC Over All Lanes (%):	72.3	Total Delay Over All Lanes(pcuHr):	5.87		

Scenario 2: '2018 Base PM' (FG2: '2018 Base PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**49.2%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**49.2%**
1/2	Newport Road (NE) Ahead	6.5	17.4	49.2%
1/1	Newport Road (NE) Left Ahead	5.6	17.4	46.9%
2/1	Newport Road (SW) Ahead	6.2	4.9	32.0%
2/2	Newport Road (SW) Ahead	7.0	4.9	33.8%
2/3	Newport Road (SW) Right	5.0	20.3	49.1%

C1	PRC for Signalled Lanes (%):	82.9	Total Delay for Signalled Lanes (pcuHr):	7.33	Cycle Time (s):	190
	PRC Over All Lanes (%):	82.9	Total Delay Over All Lanes(pcuHr):	7.33		

Basic Results Summary

Scenario 3: '2023 with Committed Development AM Peak' (FG3: '2023 with Committed Development AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**56.3%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**56.3%**
1/2	Newport Road (NE) Ahead	9.9	10.3	56.3%
1/1	Newport Road (NE) Left Ahead	8.7	10.3	54.5%
2/1	Newport Road (SW) Ahead	3.8	4.3	22.3%
2/2	Newport Road (SW) Ahead	4.5	4.3	24.3%
2/3	Newport Road (SW) Right	3.5	36.3	55.1%

C1	PRC for Signalled Lanes (%):	60.0	Total Delay for Signalled Lanes (pcuHr):	6.66	Cycle Time (s):	190
	PRC Over All Lanes (%):	60.0	Total Delay Over All Lanes(pcuHr):	6.66		

Scenario 4: '2023 with Committed Development PM Peak' (FG4: '2023 with Committed Development PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**52.8%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**52.8%**
1/2	Newport Road (NE) Ahead	7.1	18.0	52.6%
1/1	Newport Road (NE) Left Ahead	6.1	18.0	50.2%
2/1	Newport Road (SW) Ahead	6.5	5.0	33.5%
2/2	Newport Road (SW) Ahead	7.5	5.0	35.3%
2/3	Newport Road (SW) Right	5.5	21.0	52.8%

C1	PRC for Signalled Lanes (%):	70.4	Total Delay for Signalled Lanes (pcuHr):	8.05	Cycle Time (s):	190
	PRC Over All Lanes (%):	70.4	Total Delay Over All Lanes(pcuHr):	8.05		

Basic Results Summary

Scenario 5: '2023 with Committed Development and Proposed Development (Phase 1) AM Peak' (FG5: '2023 with Committed Development and Proposed Development (Phase 1) AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**56.3%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**56.3%**
1/2	Newport Road (NE) Ahead	9.9	10.3	56.3%
1/1	Newport Road (NE) Left Ahead	8.7	10.3	54.5%
2/1	Newport Road (SW) Ahead	3.8	4.3	22.3%
2/2	Newport Road (SW) Ahead	4.5	4.3	24.3%
2/3	Newport Road (SW) Right	3.5	36.3	55.1%

C1	PRC for Signalled Lanes (%):	60.0	Total Delay for Signalled Lanes (pcuHr):	6.66	Cycle Time (s):	190
	PRC Over All Lanes (%):	60.0	Total Delay Over All Lanes(pcuHr):	6.66		

Scenario 6: '2023 with Committed Development and Proposed Development (Phase 1) PM Peak' (FG6: '2023 with Committed Development and Proposed Development (Phase 1) PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**52.8%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**52.8%**
1/2	Newport Road (NE) Ahead	7.1	18.0	52.7%
1/1	Newport Road (NE) Left Ahead	6.1	18.0	50.4%
2/1	Newport Road (SW) Ahead	6.5	5.0	33.5%
2/2	Newport Road (SW) Ahead	7.5	5.0	35.3%
2/3	Newport Road (SW) Right	5.5	21.0	52.8%

C1	PRC for Signalled Lanes (%):	70.4	Total Delay for Signalled Lanes (pcuHr):	8.07	Cycle Time (s):	190
	PRC Over All Lanes (%):	70.4	Total Delay Over All Lanes(pcuHr):	8.07		

Basic Results Summary

Scenario 7: '2028 with Committed Development AM Peak' (FG7: '2028 with Committed Development AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**57.3%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**57.3%**
1/2	Newport Road (NE) Ahead	10.1	10.4	57.3%
1/1	Newport Road (NE) Left Ahead	8.9	10.4	55.5%
2/1	Newport Road (SW) Ahead	4.0	4.4	22.8%
2/2	Newport Road (SW) Ahead	4.6	4.4	24.7%
2/3	Newport Road (SW) Right	3.5	36.6	56.0%

C1	PRC for Signalled Lanes (%):	57.2	Total Delay for Signalled Lanes (pcuHr):	6.85	Cycle Time (s):	190
	PRC Over All Lanes (%):	57.2	Total Delay Over All Lanes(pcuHr):	6.85		

Scenario 8: '2028 with Committed Development PM Peak' (FG8: '2028 with Committed Development PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**53.7%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**53.7%**
1/2	Newport Road (NE) Ahead	7.2	18.1	53.4%
1/1	Newport Road (NE) Left Ahead	6.4	18.1	51.2%
2/1	Newport Road (SW) Ahead	6.8	5.0	34.2%
2/2	Newport Road (SW) Ahead	7.8	5.0	36.0%
2/3	Newport Road (SW) Right	5.8	21.2	53.7%

C1	PRC for Signalled Lanes (%):	67.6	Total Delay for Signalled Lanes (pcuHr):	8.26	Cycle Time (s):	190
	PRC Over All Lanes (%):	67.6	Total Delay Over All Lanes(pcuHr):	8.26		

Basic Results Summary

Scenario 9: '2028 with Committed and Proposed Development AM Peak' (FG9: '2028 with Committed and Proposed Development AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**57.3%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**57.3%**
1/2	Newport Road (NE) Ahead	10.1	10.4	57.3%
1/1	Newport Road (NE) Left Ahead	9.1	10.4	55.6%
2/1	Newport Road (SW) Ahead	4.0	4.4	22.8%
2/2	Newport Road (SW) Ahead	4.6	4.4	24.7%
2/3	Newport Road (SW) Right	3.5	36.6	56.0%

C1	PRC for Signalled Lanes (%):	57.2	Total Delay for Signalled Lanes (pcuHr):	6.86	Cycle Time (s):	190
	PRC Over All Lanes (%):	57.2	Total Delay Over All Lanes(pcuHr):	6.86		

Scenario 10: '2028 with Committed and Proposed Development PM Peak' (FG10: '2028 with Committed and Proposed Development PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**53.9%**
EW15 Ty-Mawr Road	**-**	**-**	**-**	**53.9%**
1/2	Newport Road (NE) Ahead	7.3	18.2	53.9%
1/1	Newport Road (NE) Left Ahead	6.4	18.2	51.5%
2/1	Newport Road (SW) Ahead	6.8	5.0	34.2%
2/2	Newport Road (SW) Ahead	7.8	5.0	36.0%
2/3	Newport Road (SW) Right	5.8	21.2	53.7%

C1	PRC for Signalled Lanes (%):	67.0	Total Delay for Signalled Lanes (pcuHr):	8.30	Cycle Time (s):	190
	PRC Over All Lanes (%):	67.0	Total Delay Over All Lanes(pcuHr):	8.30		

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Client:	Cardiff Parkway Developments
Additional detail:	
File name:	Junction 19 B4487_Wern Fawr Lane.lsg3x
Author:	Phill Ayres
Company:	Arup
Address:	

Basic Results Summary

Network Results

Scenario 1: '2018 Base AM Peak' (FG1: '2018 Base AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**61.5%**
EW4 Wern Fawr	**-**	**-**	**-**	**61.5%**
1/1+1/2	Newport Road (NE) Ahead Right	8.6	7.9	61.5 : 61.5%
2/1	Newport Road (SW) Ahead Left	11.6	12.3	56.5%
3/1+3/2	Wern Fawr Lane Left Right	2.9	51.8	57.5 : 57.5%

C1	PRC for Signalled Lanes (%):	46.3	Total Delay for Signalled Lanes (pcuHr):	6.85	Cycle Time (s):	180
	PRC Over All Lanes (%):	46.3	Total Delay Over All Lanes(pcuHr):	6.85		

Scenario 2: '2018 Base PM Peak' (FG2: '2018 Base PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**62.8%**
EW4 Wern Fawr	**-**	**-**	**-**	**62.8%**
1/1+1/2	Newport Road (NE) Ahead Right	10.3	7.9	62.8 : 62.8%
2/1	Newport Road (SW) Ahead Left	11.4	13.9	58.4%
3/1+3/2	Wern Fawr Lane Left Right	4.2	50.2	62.8 : 62.8%

C1	PRC for Signalled Lanes (%):	43.2	Total Delay for Signalled Lanes (pcuHr):	7.65	Cycle Time (s):	180
	PRC Over All Lanes (%):	43.2	Total Delay Over All Lanes(pcuHr):	7.65		

Scenario 3: '2023 with Committed Development AM Peak' (FG3: '2023 with Committed Development AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**68.8%**
EW4 Wern Fawr	**-**	**-**	**-**	**68.8%**
1/1+1/2	Newport Road (NE) Ahead Right	11.4	10.4	68.8 : 68.8%
2/1	Newport Road (SW) Ahead Left	16.2	14.8	68.7%
3/1+3/2	Wern Fawr Lane Left Right	3.4	53.8	61.4 : 61.4%

C1	PRC for Signalled Lanes (%):	30.7	Total Delay for Signalled Lanes (pcuHr):	9.27	Cycle Time (s):	180
	PRC Over All Lanes (%):	30.7	Total Delay Over All Lanes(pcuHr):	9.27		

Basic Results Summary

Scenario 4: '2023 with Committed Development PM Peak' (FG4: '2023 with Committed Development PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	-	-	-	**70.9%**
EW4 Wern Fawr	-	-	-	**70.9%**
1/1+1/2	Newport Road (NE) Ahead Right	13.8	9.5	70.7 : 70.7%
2/1	Newport Road (SW) Ahead Left	16.6	16.4	70.5%
3/1+3/2	Wern Fawr Lane Left Right	5.1	55.6	70.9 : 70.9%

C1	PRC for Signalled Lanes (%):	26.9	Total Delay for Signalled Lanes (pcuHr):	10.20	Cycle Time (s): 180
	PRC Over All Lanes (%):	26.9	Total Delay Over All Lanes(pcuHr):	10.20	

Scenario 5: '2023 with Committed Development and Proposed Development (Phase 1) AM Peak' (FG5: '2023 with Committed Development and Proposed Development (Phase 1) Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	-	-	-	**75.3%**
EW4 Wern Fawr	-	-	-	**75.3%**
1/1+1/2	Newport Road (NE) Ahead Right	12.0	11.8	69.9 : 69.9%
2/1	Newport Road (SW) Ahead Left	19.7	16.8	75.3%
3/1+3/2	Wern Fawr Lane Left Right	3.5	53.9	63.4 : 63.4%

C1	PRC for Signalled Lanes (%):	19.5	Total Delay for Signalled Lanes (pcuHr):	10.76	Cycle Time (s): 180
	PRC Over All Lanes (%):	19.5	Total Delay Over All Lanes(pcuHr):	10.76	

Scenario 6: '2023 with Committed Development and Proposed Development (Phase 1) PM Peak' (FG6: '2023 with Committed Development and Proposed Development (Phase 1) PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	-	-	-	**76.3%**
EW4 Wern Fawr	-	-	-	**76.3%**
1/1+1/2	Newport Road (NE) Ahead Right	15.7	10.6	75.3 : 75.3%
2/1	Newport Road (SW) Ahead Left	19.3	17.6	75.9%
3/1+3/2	Wern Fawr Lane Left Right	6.2	62.5	76.3 : 76.3%

C1	PRC for Signalled Lanes (%):	18.0	Total Delay for Signalled Lanes (pcuHr):	11.92	Cycle Time (s): 180
	PRC Over All Lanes (%):	18.0	Total Delay Over All Lanes(pcuHr):	11.92	

Basic Results Summary

Scenario 7: '2028 with Committed Development AM Peak' (FG7: '2028 with Committed Development AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**70.1%**
EW4 Wern Fawr	**-**	**-**	**-**	**70.1%**
1/1+1/2	Newport Road (NE) Ahead Right	12.0	10.8	70.1 : 70.1%
2/1	Newport Road (SW) Ahead Left	16.7	15.1	69.8%
3/1+3/2	Wern Fawr Lane Left Right	3.8	54.8	62.4 : 62.4%

C1	PRC for Signalled Lanes (%):	28.5	Total Delay for Signalled Lanes (pcuHr):	9.68	Cycle Time (s):	180
	PRC Over All Lanes (%):	28.5	Total Delay Over All Lanes(pcuHr):	9.68		

Scenario 8: '2028 with Committed Development PM Peak' (FG8: '2028 with Committed Development PM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**71.9%**
EW4 Wern Fawr	**-**	**-**	**-**	**71.9%**
1/1+1/2	Newport Road (NE) Ahead Right	14.4	9.8	71.8 : 71.8%
2/1	Newport Road (SW) Ahead Left	16.9	16.7	71.5%
3/1+3/2	Wern Fawr Lane Left Right	5.3	56.3	71.9 : 71.9%

C1	PRC for Signalled Lanes (%):	25.2	Total Delay for Signalled Lanes (pcuHr):	10.56	Cycle Time (s):	180
	PRC Over All Lanes (%):	25.2	Total Delay Over All Lanes(pcuHr):	10.56		

Scenario 9: '2028 with Committed and Proposed Development AM Peak' (FG9: '2028 with Committed and Proposed Development AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**76.6%**
EW4 Wern Fawr	**-**	**-**	**-**	**76.6%**
1/1+1/2	Newport Road (NE) Ahead Right	11.0	11.9	68.2 : 68.2%
2/1	Newport Road (SW) Ahead Left	20.4	17.3	76.6%
3/1+3/2	Wern Fawr Lane Left Right	3.6	54.4	64.4 : 64.4%

C1	PRC for Signalled Lanes (%):	17.4	Total Delay for Signalled Lanes (pcuHr):	11.00	Cycle Time (s):	180
	PRC Over All Lanes (%):	17.4	Total Delay Over All Lanes(pcuHr):	11.00		

Scenario 10: '2028 with Committed and Proposed Development PM Peak' (FG10: '2028 with Committed and Proposed Development PM Peak', Plan 1: 'Network Control

Basic Results Summary
Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**77.3%**
EW4 Wern Fawr	**-**	**-**	**-**	**77.3%**
1/1+1/2	Newport Road (NE) Ahead Right	15.1	10.5	74.4 : 74.4%
2/1	Newport Road (SW) Ahead Left	20.0	18.1	77.2%
3/1+3/2	Wern Fawr Lane Left Right	6.4	63.6	77.3 : 77.3%

C1	PRC for Signalled Lanes (%):	16.5	Total Delay for Signalled Lanes (pcuHr):	12.18	Cycle Time (s):	180
	PRC Over All Lanes (%):	16.5	Total Delay Over All Lanes(pcuHr):	12.18		

Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Cardiff Hendre Lakes_Cypress Drive Potential Mitigation Scheme.lsg3x
Author:	Mike Dutton
Company:	Arup
Address:	63 St Thomas St, Bristol, BS1 6JZ

Basic Results Summary

Network Results

Scenario 1: '2023 AM + Com Dev' (FG1: '2023 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**57.7%**
J1: Site Access	**-**	**-**	**-**	**30.2%**
6/1	Ahead	0.0	1.0	7.5%
6/2	Ahead	0.0	1.0	7.5%
3/1	Cypress Drive Left	0.0	0.0	0.0%
3/2	Cypress Drive Left Right	2.3	27.6	28.7%
2/1	Cypress Drive Right Left	3.7	14.1	30.2%
1/2	Site Access Ahead	0.0	0.0	0.0%
1/1	Site Access Left Ahead	0.0	0.0	0.0%
J2: Fortran Rd	**-**	**-**	**-**	**57.7%**
2/1	Cypress Drive Ahead	0.7	4.2	8.5%
3/2	Cypress Drive Ahead	0.8	6.3	8.3%
3/1	Cypress Drive Left Ahead	7.5	11.0	57.7%
2/2+2/3	Cypress Drive Right Ahead	0.8	9.5	22.9 : 22.9%
1/1	Fortran Rd Left Right	3.2	43.0	55.2%
J3: Pascal Close	**-**	**-**	**-**	**46.0%**
2/1	Cypress Drive Ahead	1.5	9.9	14.4%
3/2	Cypress Drive Ahead	6.1	10.1	46.0%
3/1	Cypress Drive Left Ahead	5.2	10.1	43.9%
2/2+2/3	Cypress Drive Right Ahead	1.5	9.9	15.2 : 15.2%
1/1	Pascal Close Right Left	0.8	39.1	20.0%
J4: Willowdene Way	**-**	**-**	**-**	**55.8%**
2/2	Cypress Drive Ahead	2.9	25.3	32.2%
3/1	Cypress Drive Ahead	6.2	11.2	46.6%
3/2+3/3	Cypress Drive Ahead Right	6.0	15.1	50.9 : 52.8%
2/1	Cypress Drive Left Ahead	2.7	25.3	31.2%
1/1	Willowdene Way Right Left	5.1	29.5	55.8%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	198.0	Total Delay for Signalled Lanes (pcuHr):	2.17	Cycle Time (s):	70
C2	Stream: 1	PRC for Signalled Lanes (%):	55.9	Total Delay for Signalled Lanes (pcuHr):	4.49	Cycle Time (s):	70
C3	Stream: 1	PRC for Signalled Lanes (%):	95.7	Total Delay for Signalled Lanes (pcuHr):	4.20	Cycle Time (s):	70
C4	Stream: 1	PRC for Signalled Lanes (%):	61.4	Total Delay for Signalled Lanes (pcuHr):	8.87	Cycle Time (s):	70
		PRC Over All Lanes (%):	55.9	Total Delay Over All Lanes(pcuHr):	19.81		

Basic Results Summary

Scenario 2: '2023 PM + Com Dev' (FG2: '2023 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**64.1%**
J1: Site Access	**-**	**-**	**-**	**42.4%**
6/1	Ahead	0.0	1.0	4.4%
6/2	Ahead	0.0	1.0	4.5%
3/1	Cypress Drive Left	0.0	0.0	0.0%
3/2	Cypress Drive Left Right	4.1	13.5	34.0%
2/1	Cypress Drive Right Left	3.3	32.0	42.4%
1/2	Site Access Ahead	0.0	0.0	0.0%
1/1	Site Access Left Ahead	0.0	0.0	0.0%
J2: Fortran Rd	**-**	**-**	**-**	**59.5%**
2/1	Cypress Drive Ahead	0.9	15.7	9.3%
3/2	Cypress Drive Ahead	3.7	23.3	37.2%
3/1	Cypress Drive Left Ahead	2.9	23.4	33.3%
2/2+2/3	Cypress Drive Right Ahead	0.8	18.4	13.6 : 13.6%
1/1	Fortran Rd Left Right	8.1	18.6	59.5%
J3: Pascal Close	**-**	**-**	**-**	**62.1%**
2/1	Cypress Drive Ahead	3.2	13.4	28.1%
3/2	Cypress Drive Ahead	2.7	10.1	23.9%
3/1	Cypress Drive Left Ahead	2.4	10.1	22.6%
2/2+2/3	Cypress Drive Right Ahead	3.2	13.2	29.3 : 29.3%
1/1	Pascal Close Right Left	4.2	42.1	62.1%
J4: Willowdene Way	**-**	**-**	**-**	**64.1%**
2/2	Cypress Drive Ahead	7.0	29.0	62.1%
3/1	Cypress Drive Ahead	2.7	5.0	27.5%
3/2+3/3	Cypress Drive Ahead Right	5.8	33.1	64.1 : 64.1%
2/1	Cypress Drive Left Ahead	6.4	29.0	60.7%
1/1	Willowdene Way Right Left	3.6	47.4	62.2%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	112.4	Total Delay for Signalled Lanes (pcuHr):	2.83	Cycle Time (s):	70
C2	Stream: 1	PRC for Signalled Lanes (%):	51.4	Total Delay for Signalled Lanes (pcuHr):	6.17	Cycle Time (s):	70
C3	Stream: 1	PRC for Signalled Lanes (%):	44.9	Total Delay for Signalled Lanes (pcuHr):	5.65	Cycle Time (s):	70
C4	Stream: 1	PRC for Signalled Lanes (%):	40.3	Total Delay for Signalled Lanes (pcuHr):	11.09	Cycle Time (s):	70
		PRC Over All Lanes (%):	40.3	Total Delay Over All Lanes(pcuHr):	25.78		

Basic Results Summary

Scenario 3: '2023 AM + Com Dev + Dev' (FG3: '2023 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**67.7%**
J1: Site Access	**-**	**-**	**-**	**62.1%**
6/1	Ahead	0.0	1.0	8.1%
6/2	Ahead	0.1	1.0	10.7%
3/1	Cypress Drive Left	4.7	18.0	39.6%
3/2	Cypress Drive Left Right	4.7	18.2	39.4%
2/1	Cypress Drive Right Left	7.2	28.7	62.1%
1/2	Site Access Ahead	1.1	21.9	11.8%
1/1	Site Access Left Ahead	0.3	22.0	4.6%
J2: Fortran Rd	**-**	**-**	**-**	**66.3%**
2/1	Cypress Drive Ahead	1.2	4.1	14.5%
3/2	Cypress Drive Ahead	6.1	8.6	47.3%
3/1	Cypress Drive Left Ahead	7.3	10.3	56.5%
2/2+2/3	Cypress Drive Right Ahead	1.0	23.2	43.1 : 43.1%
1/1	Fortran Rd Left Right	3.8	51.1	66.3%
J3: Pascal Close	**-**	**-**	**-**	**66.2%**
2/1	Cypress Drive Ahead	2.0	10.2	18.0%
3/2	Cypress Drive Ahead	10.8	13.2	66.2%
3/1	Cypress Drive Left Ahead	10.2	13.2	65.2%
2/2+2/3	Cypress Drive Right Ahead	2.0	11.3	18.8 : 18.8%
1/1	Pascal Close Right Left	0.8	39.1	20.0%
J4: Willowdene Way	**-**	**-**	**-**	**67.7%**
2/2	Cypress Drive Ahead	3.4	22.8	33.9%
3/1	Cypress Drive Ahead	10.2	12.1	63.9%
3/2+3/3	Cypress Drive Ahead Right	10.2	15.0	67.1 : 67.1%
2/1	Cypress Drive Left Ahead	3.2	22.8	33.1%
1/1	Willowdene Way Right Left	5.9	37.2	67.7%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	44.8	Total Delay for Signalled Lanes (pcuHr):	6.88	Cycle Time (s):	70
C2	Stream: 1	PRC for Signalled Lanes (%):	35.8	Total Delay for Signalled Lanes (pcuHr):	6.88	Cycle Time (s):	70
C3	Stream: 1	PRC for Signalled Lanes (%):	35.9	Total Delay for Signalled Lanes (pcuHr):	7.24	Cycle Time (s):	70
C4	Stream: 1	PRC for Signalled Lanes (%):	33.0	Total Delay for Signalled Lanes (pcuHr):	11.74	Cycle Time (s):	70
		PRC Over All Lanes (%):	33.0	Total Delay Over All Lanes(pcuHr):	32.84		

Basic Results Summary

Scenario 4: '2023 PM + Com Dev + Dev' (FG4: '2023 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**79.8%**
J1: Site Access	**-**	**-**	**-**	**66.1%**
6/1	Ahead	0.1	1.0	12.2%
6/2	Ahead	0.1	1.1	19.4%
3/1	Cypress Drive Left	0.9	8.6	8.7%
3/2	Cypress Drive Left Right	5.4	23.2	57.1%
2/1	Cypress Drive Right Left	4.5	46.1	66.1%
1/2	Site Access Ahead	4.1	15.6	32.7%
1/1	Site Access Left Ahead	3.0	15.7	28.9%
J2: Fortran Rd	**-**	**-**	**-**	**73.0%**
2/1	Cypress Drive Ahead	3.5	13.5	29.5%
3/2	Cypress Drive Ahead	3.9	18.3	35.3%
3/1	Cypress Drive Left Ahead	3.3	18.3	32.5%
2/2+2/3	Cypress Drive Right Ahead	3.3	14.0	33.3 : 33.3%
1/1	Fortran Rd Left Right	9.9	27.6	73.0%
J3: Pascal Close	**-**	**-**	**-**	**67.8%**
2/1	Cypress Drive Ahead	6.7	15.3	49.7%
3/2	Cypress Drive Ahead	3.2	9.9	27.5%
3/1	Cypress Drive Left Ahead	2.9	9.9	26.4%
2/2+2/3	Cypress Drive Right Ahead	6.7	15.2	50.8 : 50.8%
1/1	Pascal Close Right Left	4.5	47.2	67.8%
J4: Willowdene Way	**-**	**-**	**-**	**79.8%**
2/2	Cypress Drive Ahead	12.0	31.5	79.8%
3/1	Cypress Drive Ahead	3.3	4.6	33.7%
3/2+3/3	Cypress Drive Ahead Right	6.8	47.0	77.8 : 77.8%
2/1	Cypress Drive Left Ahead	11.6	31.4	79.2%
1/1	Willowdene Way Right Left	4.6	70.1	78.7%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	36.2	Total Delay for Signalled Lanes (pcuHr):	7.23	Cycle Time (s):	70
C2	Stream: 1	PRC for Signalled Lanes (%):	23.4	Total Delay for Signalled Lanes (pcuHr):	8.88	Cycle Time (s):	70
C3	Stream: 1	PRC for Signalled Lanes (%):	32.8	Total Delay for Signalled Lanes (pcuHr):	8.30	Cycle Time (s):	70
C4	Stream: 1	PRC for Signalled Lanes (%):	12.8	Total Delay for Signalled Lanes (pcuHr):	17.51	Cycle Time (s):	70
		PRC Over All Lanes (%):	12.8	Total Delay Over All Lanes(pcuHr):	42.12		

Basic Results Summary

Scenario 5: '2028 AM + Com Dev' (FG5: '2028 AM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**57.7%**
J1: Site Access	**-**	**-**	**-**	**30.2%**
6/1	Ahead	0.0	1.0	7.5%
6/2	Ahead	0.0	1.0	7.5%
3/1	Cypress Drive Left	0.0	0.0	0.0%
3/2	Cypress Drive Left Right	2.3	27.6	28.7%
2/1	Cypress Drive Right Left	3.7	14.1	30.2%
1/2	Site Access Ahead	0.0	0.0	0.0%
1/1	Site Access Left Ahead	0.0	0.0	0.0%
J2: Fortran Rd	**-**	**-**	**-**	**57.7%**
2/1	Cypress Drive Ahead	0.7	4.2	8.5%
3/2	Cypress Drive Ahead	0.8	6.3	8.3%
3/1	Cypress Drive Left Ahead	7.5	11.0	57.7%
2/2+2/3	Cypress Drive Right Ahead	0.8	9.5	22.9 : 22.9%
1/1	Fortran Rd Left Right	3.2	43.0	55.2%
J3: Pascal Close	**-**	**-**	**-**	**46.0%**
2/1	Cypress Drive Ahead	1.5	9.9	14.4%
3/2	Cypress Drive Ahead	6.1	10.1	46.0%
3/1	Cypress Drive Left Ahead	5.2	10.1	43.9%
2/2+2/3	Cypress Drive Right Ahead	1.5	9.9	15.2 : 15.2%
1/1	Pascal Close Right Left	0.8	39.1	20.0%
J4: Willowdene Way	**-**	**-**	**-**	**55.8%**
2/2	Cypress Drive Ahead	2.9	25.3	32.2%
3/1	Cypress Drive Ahead	6.2	11.2	46.6%
3/2+3/3	Cypress Drive Ahead Right	6.0	15.1	50.9 : 52.8%
2/1	Cypress Drive Left Ahead	2.7	25.3	31.2%
1/1	Willowdene Way Right Left	5.1	29.5	55.8%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	198.0	Total Delay for Signalled Lanes (pcuHr):	2.17	Cycle Time (s):	70
C2	Stream: 1	PRC for Signalled Lanes (%):	55.9	Total Delay for Signalled Lanes (pcuHr):	4.49	Cycle Time (s):	70
C3	Stream: 1	PRC for Signalled Lanes (%):	95.7	Total Delay for Signalled Lanes (pcuHr):	4.20	Cycle Time (s):	70
C4	Stream: 1	PRC for Signalled Lanes (%):	61.4	Total Delay for Signalled Lanes (pcuHr):	8.87	Cycle Time (s):	70
		PRC Over All Lanes (%):	55.9	Total Delay Over All Lanes(pcuHr):	19.81		

Basic Results Summary

Scenario 6: '2028 PM + Com Dev' (FG6: '2028 PM + Com Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**64.1%**
J1: Site Access	**-**	**-**	**-**	**42.4%**
6/1	Ahead	0.0	1.0	4.4%
6/2	Ahead	0.0	1.0	4.5%
3/1	Cypress Drive Left	0.0	0.0	0.0%
3/2	Cypress Drive Left Right	4.1	13.5	34.0%
2/1	Cypress Drive Right Left	3.3	32.0	42.4%
1/2	Site Access Ahead	0.0	0.0	0.0%
1/1	Site Access Left Ahead	0.0	0.0	0.0%
J2: Fortran Rd	**-**	**-**	**-**	**59.5%**
2/1	Cypress Drive Ahead	0.9	15.7	9.3%
3/2	Cypress Drive Ahead	3.7	23.3	37.2%
3/1	Cypress Drive Left Ahead	2.9	23.4	33.3%
2/2+2/3	Cypress Drive Right Ahead	0.8	18.4	13.6 : 13.6%
1/1	Fortran Rd Left Right	8.1	18.6	59.5%
J3: Pascal Close	**-**	**-**	**-**	**62.1%**
2/1	Cypress Drive Ahead	3.2	13.4	28.1%
3/2	Cypress Drive Ahead	2.7	10.1	23.9%
3/1	Cypress Drive Left Ahead	2.4	10.1	22.6%
2/2+2/3	Cypress Drive Right Ahead	3.2	13.2	29.3 : 29.3%
1/1	Pascal Close Right Left	4.2	42.1	62.1%
J4: Willowdene Way	**-**	**-**	**-**	**64.1%**
2/2	Cypress Drive Ahead	7.0	29.0	62.1%
3/1	Cypress Drive Ahead	2.7	5.0	27.5%
3/2+3/3	Cypress Drive Ahead Right	5.8	33.1	64.1 : 64.1%
2/1	Cypress Drive Left Ahead	6.4	29.0	60.7%
1/1	Willowdene Way Right Left	3.6	47.4	62.2%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	112.4	Total Delay for Signalled Lanes (pcuHr):	2.83	Cycle Time (s):	70
C2	Stream: 1	PRC for Signalled Lanes (%):	51.4	Total Delay for Signalled Lanes (pcuHr):	6.17	Cycle Time (s):	70
C3	Stream: 1	PRC for Signalled Lanes (%):	44.9	Total Delay for Signalled Lanes (pcuHr):	5.65	Cycle Time (s):	70
C4	Stream: 1	PRC for Signalled Lanes (%):	40.3	Total Delay for Signalled Lanes (pcuHr):	11.09	Cycle Time (s):	70
		PRC Over All Lanes (%):	40.3	Total Delay Over All Lanes(pcuHr):	25.78		

Basic Results Summary

Scenario 7: '2028 AM + Com Dev + Dev' (FG7: '2028 AM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**83.4%**
J1: Site Access	**-**	**-**	**-**	**80.9%**
6/1	Ahead	0.1	1.0	9.2%
6/2	Ahead	0.1	1.0	11.8%
3/1	Cypress Drive Left	13.3	20.9	66.5%
3/2	Cypress Drive Left Right	13.3	21.0	66.5%
2/1	Cypress Drive Right Left	12.0	48.6	80.9%
1/2	Site Access Ahead	1.7	18.1	12.0%
1/1	Site Access Left Ahead	0.9	18.2	8.1%
J2: Fortran Rd	**-**	**-**	**-**	**73.1%**
2/1	Cypress Drive Ahead	2.0	3.6	20.9%
3/2	Cypress Drive Ahead	14.3	11.1	69.2%
3/1	Cypress Drive Left Ahead	12.6	11.1	67.6%
2/2+2/3	Cypress Drive Right Ahead	1.6	72.4	67.2 : 67.2%
1/1	Fortran Rd Left Right	4.5	74.0	73.1%
J3: Pascal Close	**-**	**-**	**-**	**81.4%**
2/1	Cypress Drive Ahead	2.1	8.1	16.2%
3/2	Cypress Drive Ahead	21.2	16.4	81.4%
3/1	Cypress Drive Left Ahead	20.5	16.4	80.9%
2/2+2/3	Cypress Drive Right Ahead	2.1	9.8	16.9 : 16.9%
1/1	Pascal Close Right Left	1.0	53.0	23.8%
J4: Willowdene Way	**-**	**-**	**-**	**83.4%**
2/2	Cypress Drive Ahead	3.5	17.7	24.5%
3/1	Cypress Drive Ahead	22.0	16.9	82.3%
3/2+3/3	Cypress Drive Ahead Right	22.0	19.9	83.4 : 83.4%
2/1	Cypress Drive Left Ahead	3.4	17.7	24.1%
1/1	Willowdene Way Right Left	8.3	59.0	79.8%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	11.2	Total Delay for Signalled Lanes (pcuHr):	14.55	Cycle Time (s):	90
C2	Stream: 1	PRC for Signalled Lanes (%):	23.2	Total Delay for Signalled Lanes (pcuHr):	10.92	Cycle Time (s):	90
C3	Stream: 1	PRC for Signalled Lanes (%):	10.6	Total Delay for Signalled Lanes (pcuHr):	11.49	Cycle Time (s):	90
C4	Stream: 1	PRC for Signalled Lanes (%):	7.9	Total Delay for Signalled Lanes (pcuHr):	18.31	Cycle Time (s):	90
		PRC Over All Lanes (%):	7.9	Total Delay Over All Lanes(pcuHr):	55.39		

Basic Results Summary

Scenario 8: '2028 PM + Com Dev + Dev' (FG8: '2028 PM + Com Dev + Dev', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**89.4%**
J1: Site Access	**-**	**-**	**-**	**76.1%**
6/1	Ahead	0.2	1.2	26.4%
6/2	Ahead	0.3	1.4	36.6%
3/1	Cypress Drive Left	1.9	8.0	15.1%
3/2	Cypress Drive Left Right	8.7	52.8	76.1%
2/1	Cypress Drive Right Left	5.8	59.1	70.8%
1/2	Site Access Ahead	14.3	24.8	69.2%
1/1	Site Access Left Ahead	11.7	25.0	66.8%
J2: Fortran Rd	**-**	**-**	**-**	**78.4%**
2/1	Cypress Drive Ahead	9.0	13.5	51.1%
3/2	Cypress Drive Ahead	4.1	13.9	27.5%
3/1	Cypress Drive Left Ahead	3.5	13.9	26.1%
2/2+2/3	Cypress Drive Right Ahead	9.0	13.6	53.5 : 53.5%
1/1	Fortran Rd Left Right	11.7	43.4	78.4%
J3: Pascal Close	**-**	**-**	**-**	**77.1%**
2/1	Cypress Drive Ahead	12.9	15.3	63.6%
3/2	Cypress Drive Ahead	3.3	7.8	24.7%
3/1	Cypress Drive Left Ahead	3.0	7.8	23.6%
2/2+2/3	Cypress Drive Right Ahead	13.0	15.2	64.3 : 64.3%
1/1	Pascal Close Right Left	5.7	72.1	77.1%
J4: Willowdene Way	**-**	**-**	**-**	**89.4%**
2/2	Cypress Drive Ahead	23.2	38.1	89.4%
3/1	Cypress Drive Ahead	4.1	4.6	34.8%
3/2+3/3	Cypress Drive Ahead Right	10.0	83.0	0.0 : 89.2%
2/1	Cypress Drive Left Ahead	22.4	38.0	89.2%
1/1	Willowdene Way Right Left	5.6	84.0	81.0%

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%):	18.2	Total Delay for Signalled Lanes (pcuHr):	16.71	Cycle Time (s):	90
C2	Stream: 1	PRC for Signalled Lanes (%):	14.8	Total Delay for Signalled Lanes (pcuHr):	11.97	Cycle Time (s):	90
C3	Stream: 1	PRC for Signalled Lanes (%):	16.7	Total Delay for Signalled Lanes (pcuHr):	11.21	Cycle Time (s):	90
C4	Stream: 1	PRC for Signalled Lanes (%):	0.6	Total Delay for Signalled Lanes (pcuHr):	28.17	Cycle Time (s):	90
		PRC Over All Lanes (%):	0.6	Total Delay Over All Lanes(pcuHr):	68.52		

Basic Results Summary

User and Project Details

Project:	**Cardiff Parkway**
Title:	
Location:	
Additional detail:	
File name:	A48-Cypress Drive Stagger Junction Potential Mitigation Scheme.lsg3x
Author:	
Company:	
Address:	

Basic Results Summary

Network Results

Scenario 1: '2023 with Phase 1 AM' (FG1: '2023 with Phase 1 AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**78.5%**
A48/Cypress Drive	**-**	**-**	**-**	**78.5%**
2/1+2/2	A48 Left	6.9	24.4	51.2 : 51.2%
1/4+1/3	A48 Off Slip Ahead	12.4	20.6	75.8 : 75.8%
1/2+1/1	A48 Off Slip Ahead Left	12.4	16.9	78.5 : 78.5%
2/3+2/4	A48 Right	5.9	50.9	73.4 : 73.7%
5/3+5/4	Cypress Drive Ahead	5.6	46.7	68.8 : 65.2%
5/2+5/1	Cypress Drive Ahead Left	4.2	43.7	57.6 : 57.6%
3/1	N/B Internal Ahead	2.9	5.3	25.1%
3/2	N/B Internal Ahead	3.2	5.1	27.3%
3/3+3/4	N/B Internal Right	13.5	39.8	78.5 : 78.5%
6/2+6/1	Newport Rd Left	4.1	5.2	48.7 : 48.7%
6/3+6/4	Newport Rd Right	2.9	51.3	55.1 : 55.3%
4/1	SB Internal Ahead	3.7	3.8	55.8%
4/2+4/3	SB Internal Ahead Right	19.3	5.6	57.1 : 57.1%
4/4	SB Internal Right	4.0	8.6	47.4%

C1	Stream: 1	PRC for Signalled Lanes (%):	14.6	Total Delay for Signalled Lanes (pcuHr):	30.30	Cycle Time (s):	90
C1	Stream: 2	PRC for Signalled Lanes (%):	30.9	Total Delay for Signalled Lanes (pcuHr):	15.40	Cycle Time (s):	90
		PRC Over All Lanes (%):	14.6	Total Delay Over All Lanes(pcuHr):	45.70		

Basic Results Summary

Scenario 2: '2023 with Phase 1 PM' (FG2: '2023 with Phase 1 PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**75.2%**
A48/Cypress Drive	**-**	**-**	**-**	**75.2%**
2/1+2/2	A48 Left	2.6	13.4	29.7 : 29.7%
1/4+1/3	A48 Off Slip Ahead	9.5	28.2	64.3 : 64.3%
1/2+1/1	A48 Off Slip Ahead Left	11.7	24.3	75.2 : 75.2%
2/3+2/4	A48 Right	9.5	33.7	68.7 : 68.9%
5/3+5/4	Cypress Drive Ahead	11.5	31.3	70.0 : 70.0%
5/2+5/1	Cypress Drive Ahead Left	8.2	29.9	66.3 : 66.3%
3/1	N/B Internal Ahead	5.4	9.2	54.1%
3/2	N/B Internal Ahead	5.0	8.1	59.5%
3/3+3/4	N/B Internal Right	13.1	32.2	71.4 : 70.6%
6/2+6/1	Newport Rd Left	9.7	15.4	67.7 : 67.7%
6/3+6/4	Newport Rd Right	1.6	46.8	34.0 : 34.1%
4/1	SB Internal Ahead	1.2	2.3	40.4%
4/2+4/3	SB Internal Ahead Right	16.5	26.4	61.3 : 61.3%
4/4	SB Internal Right	12.7	24.1	64.5%

C1	Stream: 1	PRC for Signalled Lanes (%):	19.7	Total Delay for Signalled Lanes (pcuHr):	27.93	Cycle Time (s):	90
C1	Stream: 2	PRC for Signalled Lanes (%):	28.5	Total Delay for Signalled Lanes (pcuHr):	23.22	Cycle Time (s):	90
		PRC Over All Lanes (%):	19.7	Total Delay Over All Lanes(pcuHr):	51.15		

Basic Results Summary

Scenario 3: '2028 with Development AM' (FG3: '2028 with Development AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	-	-	-	**89.3%**
A48/Cypress Drive	-	-	-	**89.3%**
2/1+2/2	A48 Left	9.6	28.3	66.6 : 66.6%
1/4+1/3	A48 Off Slip Ahead	18.9	25.7	88.8 : 88.8%
1/2+1/1	A48 Off Slip Ahead Left	17.2	22.3	89.3 : 89.3%
2/3+2/4	A48 Right	6.7	58.9	81.5 : 81.6%
5/3+5/4	Cypress Drive Ahead	5.1	37.1	51.8 : 47.0%
5/2+5/1	Cypress Drive Ahead Left	3.5	34.3	43.2 : 43.2%
3/1	N/B Internal Ahead	3.0	4.1	24.4%
3/2	N/B Internal Ahead	3.2	4.2	26.1%
3/3+3/4	N/B Internal Right	14.2	44.7	84.1 : 84.1%
6/2+6/1	Newport Rd Left	4.6	7.0	49.1 : 49.1%
6/3+6/4	Newport Rd Right	4.0	53.0	66.0 : 65.8%
4/1	SB Internal Ahead	5.2	5.3	69.6%
4/2+4/3	SB Internal Ahead Right	21.8	6.7	68.2 : 68.2%
4/4	SB Internal Right	5.1	11.7	59.9%

C1	Stream: 1 PRC for Signalled Lanes (%):	0.7	Total Delay for Signalled Lanes (pcuHr):	39.25	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	29.3	Total Delay for Signalled Lanes (pcuHr):	17.43	Cycle Time (s):	90
	PRC Over All Lanes (%):	0.7	Total Delay Over All Lanes(pcuHr):	56.68		

Basic Results Summary

Scenario 4: '2028 with Development PM' (FG4: '2028 with Development PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Mean Max Queue (pcu)	Av. Delay Per PCU (s/pcu)	Deg Sat (%)
Network	**-**	**-**	**-**	**79.2%**
A48/Cypress Drive	**-**	**-**	**-**	**79.2%**
2/1+2/2	A48 Left	2.5	12.7	26.9 : 26.9%
1/4+1/3	A48 Off Slip Ahead	8.6	28.1	60.5 : 60.5%
1/2+1/1	A48 Off Slip Ahead Left	12.4	27.9	77.8 : 77.8%
2/3+2/4	A48 Right	10.8	40.2	79.2 : 79.1%
5/3+5/4	Cypress Drive Ahead	14.9	26.7	78.6 : 78.6%
5/2+5/1	Cypress Drive Ahead Left	13.2	26.6	76.0 : 76.0%
3/1	N/B Internal Ahead	14.8	12.9	64.8%
3/2	N/B Internal Ahead	18.6	13.7	68.5%
3/3+3/4	N/B Internal Right	13.8	39.2	77.5 : 77.5%
6/2+6/1	Newport Rd Left	14.4	25.3	79.1 : 79.1%
6/3+6/4	Newport Rd Right	1.7	47.1	36.5 : 35.9%
4/1	SB Internal Ahead	1.2	2.3	41.2%
4/2+4/3	SB Internal Ahead Right	16.7	29.9	78.3 : 78.3%
4/4	SB Internal Right	11.1	30.4	76.0%

C1	Stream: 1 PRC for Signalled Lanes (%):	13.6	Total Delay for Signalled Lanes (pcuHr):	34.82	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	13.8	Total Delay for Signalled Lanes (pcuHr):	28.97	Cycle Time (s):	90
	PRC Over All Lanes (%):	13.6	Total Delay Over All Lanes(pcuHr):	63.79		

Appendix T

Construction Traffic Calculations

Cardiff Parkway Developments Ltd

Cardiff Hendre Lakes

Estimated Construction Vehicle Movements – Cardiff Hendre Lakes

REP/AEB/20200102

Issue 2 | 26 March 2020

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 252199-17

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ARUP

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Appendices

Appendix A

Construction Traffic Associated with Earthworks and Infrastructure

1 Introduction

Cardiff Hendre Lakes is a major employment led development project which will create 90,000sqm of employment space, a new mainline train station (Cardiff Parkway) and a transport interchange. In bringing the project forward Cardiff Parkway Developments Ltd, are delivering on the allocation made in the Cardiff Local Development Plan allocation (LDP).

Delivery of the project will be phased and can broadly grouped into three areas:

- Enabling infrastructure works including earthworks and utilities being undertaken alongside ecological and flood mitigation works in the initial phase. These works will begin once the required planning permissions, licenses and agreements have been reached and will be phased over a number of years.
- The station, transport interchange, station car park and access road will be delivered once the necessary approvals have been obtained, with the station construction programme in particular dependant on phasing and the securing of necessary possessions of the railway network. These works are being completed in a concurrent manner, with a view to opening the station as soon as practically possible.
- Development of commercial buildings will be phased with the first buildings opening at the same time as the station and transport interchange, and subsequent buildings being constructed over a number of yeas in response to market appetite.

A construction programme has been developed for the works which has been informed by the clients' development strategy, Arup engineering and planning teams, key stakeholders such as Network Rail, an ECI rail contractor and commercial property agents.

Based on this construction programme, a set of assumptions around phasing and timescales has been developed for the purposes of assessment in the ES and associated planning documentation. This has been designed to provide a robust basis for assessment with multiple activities being undertaken in parallel and activities being undertaken in an intensive manner.

This note sets out the basis of the assumed construction material quantum, programme of works and resulting vehicular movements for each of the three groups to calculate total vehicular movements for the purposes of assessment.

- Section 2 sets out the construction traffic movements associated with the construction of employment land uses.
- Section 3 sets out the construction traffic movements associated with the station building and railway corridor works; and
- Section 4 sets out the construction traffic associated with earthworks and enabling infrastructure.

2 Hendre Lakes Construction of Employment Buildings

2.1 Introduction

The development construction programme for buildings assumes that the 90,000sqm of development is built over eight years, with a flat development profile as shown in Table 1.

Table 1: Assumed annual construction by gross area

Cardiff Hendre Lakes – Proposed Annual Construction	
Year	**Construction Gross Internal Area (m^2)**
Year 1	11,250
Year 2	11,250
Year 3	11,250
Year 4	11,250
Year 5	11,250
Year 6	11,250
Year 7	11,250
Year 8	11,250
Total (8 Years)	90,000

The quantum of floorspace delivered each year is based on discussions with the client and local property advisors and is considered a robust basis for assessment given local market conditions. The phasing of development areas and individual buildings will be determined by market conditions and the location of building construction activities on the site is therefore not known at the current time.

The development is located on a greenfield location and therefore requires no demolition of existing structures.

New developments are not planned to have a basement, which removes the need for large excavations and concrete pours associated with the construction of underground structures.

To calculate the level of construction activity building construction has been considered as three phases which are as follows:

- Construction sub structure;
- Construction super structure; and
- Fit-out of completed structure.

The programme used for calculations within this report is shown in Table 2 overleaf.

Table 2: Simplified construction programme

Simplified Construction Programme		
Scheme Delivery	**Working Days**	**Working Months**
Sub Structure	120	4
Super Structure	120	4
Fit-out	120	4
Total	**360**	**12**

2.2 Assumptions

This section sets out the assumptions for the calculations used to determine the number of construction vehicles.

2.2.1 Construction Traffic

This section sets out to provide guidance and information on the type of construction movements and types of vehicles used to process waste and goods into and away from the construction site. The types of vehicle movements associated with construction traffic are as follows:

- Workforce movements to/from the site;
- Deliveries made to the site;
- Collection of material or equipment from the site;
- Removal of material from the site; and
- Trips made by associated trades.

From the survey data, the breakdown of construction trips by the purpose of trip is presented in Table 3.

Table 3: Percentage by purpose of delivery

Percentage - Purpose of Delivery	
Delivery	**Percentage**
Collection	14%
Delivery	80%
Waste	6%

Each of these movements will be associated with different types of vehicle or plant. These vehicles are considered in the next section.

2.2.2 Construction Vehicles and Plant

Consideration should be given to the type of vehicle and plant that is likely to be used during the construction works. These may be identified and grouped according to their size:

- Car/pick up/3.5 ton van;
- 7.5 ton box van/panel van;
- Low loader and articulated Heavy Goods Vehicle (HGV);
- Ready mix concrete truck;
- Mobile crane;
- Water bowsers;
- Road cleaning vehicles;
- Skip lorry; and
- 32-ton tipper truck.

Earlier stages often requiring greater use of HGVs for site clearance and bulk delivery. The type of vehicle and plant that would be typically associated with each of the construction phases is shown in Table 4.

Table 4: Indicative list of plant and equipment by construction phase

Types of Plant and Equipment Typically Used for Demolition/Construction				
Plant	**Demolition**	**Substructure**	**Superstructure**	**Fit out**
Excavators / with hydraulic cutting shears	√	√	-	-
Mini / Tripod piling rigs	-	√	-	-
Excavators	√	√	-	-
Compressors	√	√	√	√
Muck away lorries	√	√	-	-
Hoist tower	√	√	√	√
Tower crane	√	√	√	-
Mobile concrete pump	-	√	√	-
General waste skips	√	√	√	√
Power tools	√	√	√	√
Delivery vehicles	√	√	√	√
Forklifts	√	√	√	√
Scaffold access Platforms	√	√	√	-
Mobile towers	√	√	√	√
√ indicates plant will be used during that stage of the works				

For the purposes of assessment, the different types of construction vehicles and plant can be grouped by weight. From the survey data, the typical vehicle profile for construction traffic by vehicle type is shown in Table 5.

Table 5: Percentage by type of construction vehicle

Percentage - Construction Vehicle by Type	
Vehicle	**Percentage**
Light Goods Vehicle	14%
Medium Goods Vehicle	66%
Heavy Goods Vehicle	20%

2.2.3 Working Hours

For the purposes of assessment, it is assumed that all deliveries would be made during a 10-hour period from 0800 to 1800, Monday to Friday.

2.2.4 Type of Buildings

Construction traffic calculations have assumed that all 90,000sqm of development is B1 office as this provides the most intensive construction activities and is the most robust basis for assessment.

2.2.5 Trip Rates Construction Traffic

Trip rates, expressed as number of vehicles/100m^2, applied during this study are as follows:

- Concrete pours: 15 vehicles/100m^2/day;
- Sub structure: 5 vehicles/100m^2/day;
- Super structure: 10 vehicles/100m^2/day; and
- Fit-out: 7 vehicles/100m^2/day.

These trip rates are based on construction traffic surveys undertaken for a range of office led employment sites elsewhere in the UK.

2.2.6 Distribution and Assignment

The routes used by construction vehicles will be managed by the contractor and subject to agreements made with the local highway authority and secured as part of a Construction Traffic Management Plan (CTMP) and Construction Environmental Management Plan (CEMP).

The distribution of vehicles and plant equipment associated with the construction process is presented in Table 6.

Table 6: Summary of vehicle type and use

Summary of Vehicle Type - Use and Distribution		
Vehicle Type	**Use**	**Distribution**
Rigid Heavy Goods Vehicle	Demolition arising, excavated material removal. Tipper trucks and ready-mix concrete vehicles.	Controlled by agreement to use the strategic road network except for site access.
Small Articulated Vehicle	Plant, steelwork, bricks and cladding panels.	Controlled by agreement to use the strategic road network except for site access.
Specialised Articulated Heavy Goods Vehicle	Tower crane erection & dismantle, mechanical & electrical plant, cladding panels. Roofing materials.	Controlled by agreement to use the strategic road network except for site access.
Specialised Equipment Low Loader	Occasional delivery of plant.	Controlled by agreement to use the strategic road network except for site access.
Cars/Vans	Plant service, materials, other suppliers. Existing tenant deliveries. Workforce trips	No restriction, will use strategic road network and local highways as appropriate

Larger vehicles will be assigned to the strategic road network which provides suitable carriageway width and capacity, as well as being located away from receptors. The site is well located with respect to strategic road network access with the M4 and A48(M) in close proximity.

2.3 Construction Phases

The estimated number of construction vehicles have been calculated for each of the three phases of construction as follows:

- Construction sub structure;
- Construction super structure; and
- Fit-out.

Calculations are based on survey data obtained from a range of commercial development sites within central London. These sites varied from small (12,999m^2), medium (42,000m^2) and large (68,000m^2) developments in terms of area.

As stated in section earlier it has been assumed that there are no basement excavations and associated ready-mix concrete deliveries required to prepare a basement. This significantly reduces the number of vehicle movements expected within the construction site. While the optional characteristics of a site in London would not be typically assumed for a site in Cardiff, the construction characteristics will be broadly comparable.

2.4 Construction Traffic Calculations

This section considers the number of construction vehicles based on the programme summarised in Table 7.

Table 7: Quantum of Construction per Annum (8-year construction period)

Cardiff Hendre Lakes – Construction Programme	
Construction Period	**Gross Area Constructed (m^2)**
Eight Years	11,250 per annum

Construction - Substructure

The sub structure includes the construction mobilisation activities of the construction phase. Table 8 presents the estimated vehicle trips to the site per annum, per month and the Average Annual Weekday Traffic (AAWT).

Table 8: Estimated construction substructure vehicles per annum

Cardiff Hendre Lakes – Estimated Construction Mobilisation Vehicle Trips				
Phase	**Duration (months)**	**Total Vehicles**	**Average Vehicles/Month**	**AAWT**
Sub Structure	4	584	146	7

Construction - Superstructure

The number of vehicles anticipated during the construction of the superstructure and presented in Table 9.

Table 9: Estimated construction superstructure vehicles per annum

Cardiff Hendre Lakes – Estimated Superstructure Vehicle Trips				
Phase	**Duration (months)**	**Total Vehicles**	**Average Vehicles/Month**	**AAWT**
Superstructure	4	1,089	272	12

Fit-Out

The number of vehicles anticipated during the fit-out stage of the buildings at Hendre Lakes development and is presented in Table 10.

Table 10: Estimated fit-out vehicles per annum

Cardiff Hendre Lakes – Estimated Post Completion Vehicle Trips				
Phase	**Duration (months)**	**Total Vehicles**	**Average Vehicles/Month**	**AAWT**
Fit Out	4	756	189	7

Construction Employment Vehicle Movements

Contractor movements have been calculated using figures provided by contractors in support of similar employment schemes. The total number of contractors estimated to travel to site is based on a comparison of the estimated number of HGV movements. The contractor movement calculation has been finessed to reflect the total number of construction jobs estimated to be created by the business district, as set out in the Socio-economic chapter of the Environmental Statement.

To provide for a robust assessment, it has been assumed that 80% of contractors will travel to the site by car.

2.5 Summary: Building Construction

Table 11 summarises the number of vehicle trips estimated for each of the three construction phases for each year of building construction.

Table 11: Estimated construction vehicle movements per annum

Cardiff Hendre Lakes – Estimated Building Construction Logistics Vehicle Movements			
Building Phase	**Vehicles Per Annum**	**Average Vehicles/Month**	**AAWT**
Construction Substructure	584	146	7
Construction Superstructure	1,089	272	12
Fit-Out	756	189	7
Total	**2,429**	**607**	**26**

The total number of construction vehicles between 2021 and 2028 are presented in Table 12.

Table 12: Summary estimated construction vehicles per annum

Cardiff Hendre Lakes – Estimated Construction Vehicles					
Year	**Gross Area Constructed (m^2)**	**Substructure**	**Superstructure**	**Fit-Out**	**Total Vehicles**
Year 1	11,250	584	1,089	189	2,429
Year 2	11,250	584	1,089	189	2,429
Year 3	11,250	584	1,089	189	2,429
Year 4	11,250	584	1,089	189	2,429
Year 5	11,250	584	1,089	189	2,429
Year 6	11,250	584	1,089	189	2,429
Year 7	11,250	584	1,089	189	2,429
Year 8	11,250	584	1,089	189	2,429

As detailed in the Transport Assessment, there several potential locations for the construction access into the proposed development. Whilst the location of the construction access has not been finalised, it is not anticipated to impact the construction traffic calculations presented in this chapter.

3 Cardiff Parkway Station & Railway Corridor Works

3.1 Introduction

This section sets out the Annual Average Weekday Traffic (AAWT) estimated to be generated by the delivery of plant and material for each year of construction.

All contractors have stated that the construction would require access from both sides of the railway. This means that two compounds would be required to ensure efficiency.

The majority of intrusive rail work is assumed be completed during possessions, line blockages and blockade. Nature and time of working is entirely possession-dependant in these scenarios. The majority of works to the railway corridor are assumed to be completed overnight, between 12am – 6am. Possessions will be planned long in advance due to busyness of GWML. Where possession timetabling permits, overnight working could be as much as 7 days a week. Additionally, much of the construction works will require isolation of the OLE.

Works on the station building can largely be undertaken during normal construction hours, as the building is setback from the rail line. Likewise possessions will not be required for works on the station building itself, but will be required for elements within the railway corridor such as the pedestrian bridge.

3.2 Programme

This section sets out the programme based upon which these estimations have been made. This is based upon a construction period just under two years. The principle activities and timescales are summarised below:

1. Site Establishment **(approximately 5 months):**
    a. Cypress Drive access road;
    b. Heol Las access road;
    c. North & South compound setup;
    d. North RRAP (2road) – Night work;
    e. South RRAP (2road) – Night work;
    f. Haul road construction (South);
    g. Piling mat construction for North & South platforms (700mm thickness approx.);

2. Initial Works **(approximately 9 months):**
    a. Culvert extension;
    b. Piling works: Concrete: Embankment widening. Steel: OLE masts, West bridge, North & South platforms, Central bridge, canopies (North pile caps) – Both night work & offline.

3. Pile caps **(approximately 3 months):**
    a. West & Central bridge piers;
    b. North platform canopy columns;

   c. South platform canopy pile caps
   d. OLE mast pile caps;
   e. Build-up of embankment extensions

4. Relief Track Construction **(approximately 6 weeks):**
   a. Off-line construction of track bed and formation (around existing OLE).

5. South Platform Construction **(approximately 2 weeks)**:
   a. Build South platform and canopy columns;
   b. Install Central bridge pier (South);
   c. Install Main & Relief line OLE;

6. Reinstating Relief Lines **(tbc under 5-day blockade):**
   a. Tie-in to slewed relief track;
   b. Build central bridge pier piles (South & Central footbridges);
   c. Canopy pile installation on island platform;
   d. Remove existing relief track;
   e. Install gaps in previously installed relief track;
   f. Adjust RRAP position to new track;
   g. Wire new Relief OLE masts

7. Relief Line Island Platform Construction & OLE Commission **(approximately 2 weeks):**
   a. Commission Relief OLE – Weekend possession;
   b. Build South side of island platform – Night work;

8. Main Line Platform Construction – tbc during weekend possession **(2no. weekend possessions (24hr working)):**
   a. Wire new Main OLE masts;
   b. Build North platform;
   c. Build North side of island platform;

9. Island Platform Columns & Piers – Night work **(approximately 1 month)**:
   a. Complete island platform construction;
   b. Build island platform piers (South & Central);
   c. Build island platform canopy columns;

10. South Platform Canopies & Bridge Construction **(approximately 1 month)**:
    a. Install South bridge spans (Central & South) – tbc during possession;
    b. Install canopy for South platform – Night work;
    c. Install canopy for South of island platform – Night work;

11. North Platform Canopies & Bridge Construction **(approximately 1 month)**:
    a. Install North bridge spans (Central & South) – tbc during possession;
    b. Install canopy for North platform – Night work;
    c. Install canopy for North of island platform – Night work;

12. Commission & Handover **(approximately 3 weeks)**:
    a. Remove haul road (North);
    b. Modify haul road to create emergency access (South);

3.3 HGV Movements

Year 1

It is estimated that the construction traffic generated during Year 1 will comprise:

- 12no. concrete lorries per week (for 7-month period);
- 15no. 16t aggregate lorries per week (for 5-month period); and
- 5no. miscellaneous materials deliveries per week.

Overall this estimated to result in approximately 20-25 HGVs accessing the site per week.

Total: Circa. 20 – 25 HGVs accessing site per week.

Year 2

It is estimated that the construction traffic generated during Year 2 will comprise the following:

- 12no. concrete lorries per week (for 2-month period);
- 2no. wagons per day (for 1-month period) – embankment works, 2no. concrete wagons per day (for 3-month period) – pile caps, 2no. steel wagons per week (piers and columns);
- All major deliveries by rail;
- 4no. wagons per week – canopy columns (for 2-week period), 4no. wagons per week – OLE equipment (for 2-week period);
- Total 10no. wagons per day (for 1-week period);
- 5no. wagons per week – pre-fabricated concrete platform blocks (for 2-week period);
- 2no. wagons per day – North & island platform construction (for 2-week period);
- 2no. wagons per week – canopy columns (for 1-month period);
- 4no. wagons per week – canopies (for 1 month), 2no. wagon per week – bridge sections (for 2-weeks);
- 4no. wagons per week – canopies (for 1 month), 2no. wagon per week – bridge sections (for 2-weeks); and
- 5no. muckaway lorries per week (for 3-week period).

In addition, the construction of the station building is estimated to generate the following HGV movements:

- 3-5no. wagons per week – sub-structure (4 months);
- 6 no, wagons a week – super-structure (4 months); and

- 3-5no. wagons per week – sub-structure (4 months).

Overall this is estimated to result in approximately 15 – 20 HGVs accessing site per week.

Total: 15 – 20 HGVs accessing site per week.

3.4 Labour and Specialists

This section sets out the Annual Average Weekday Traffic which it is estimated will be generated by labour and specialists travelling to and from the site for each year of construction. All plant and materials are expected to access site from a Northerly direction, and working weeks are estimated to be 5 days or 5.5 days (to include Saturday mornings).

Year 1

It is estimated that the traffic generated by labour and specialists travelling to and from the site during Year 1 will comprise the following:

- Contractor vehicles (assuming no overnight accommodation is provided) – 15 vehicles per day;
- Piling subcontractor – 2 vehicles per day;
- Groundworkers (piling platform) – 4 vehicles per day; and
- Misc. subcontractors – 2 per day.
- Overall this is estimated to result in approximately 20 vehicle movements per day, or 125 – 150 per week.

Total: 20 vehicles per day. 125 – 150 per week.

Year 2

It is estimated that the traffic generated by labour and specialists travelling to and from the site during Year 2 will comprise the following:

- Contractor vehicles (assuming no overnight accommodation is provided) – 15 vehicles per day;
- Piling subcontractor – 2 vehicles per day;
- Groundworkers – 2 vehicles per day;
- Trackworkers – 2 vehicles per day;
- Steelworkers – 3 vehicles per day;
- Station building – 6 vehicles per day; and

- Misc. subcontractors – 4 per day.

Overall this is estimated to result in approximately 34 vehicle movements per day, or 170 – 190 per week.

Total: 34 vehicles per day. 170 – 190 per week.

3.5 Assumptions

The following assumptions have been made in the estimation of HGV and labour and specialist traffic:

- Existing OLE masts not to be reused due to construction phasing. Proposed structures to be erected off-line prior to de-wiring of existing OLE.
- Materials used for construction of track (bottom & top ballast, rails & sleepers) to be transported via rail.
- When calculating total HGV & labour traffic, a 5.5 day working week is used for calculation in off-line work.

3.6 Summary: Station Building & Railway Corridor Construction

Overall, construction traffic is estimated to generate 20-25 HGV trips and 125-150 labour and supply vehicles per week in Year 1, and 15-20 HGV trips and 170-190 labour and specialist trips per week in Year 2.

Table 13: Estimated construction vehicle movements per annum for Railway Works

Cardiff Parkway Station: Construction Traffic Movements			
Year	**HGVs AAWT**	**LGVs / Cars AAWT**	**Total Vehicles (AAWT)**
Year 1	3.3	21.6	24.9
Year 2	2.7	34	36.7

4 Hendre Lakes Earthworks and Enabling Infrastructure

4.1 Introduction

To develop the site in compliance with TAN15 Flood regulations it is necessary to create raised earthworks platforms for development, which allow the construction of buildings and accessways which are above future predicted flood levels. It is also necessary to mitigate the impact of land raising and associated development outcomes within the redline boundary of the application, which necessitates some land lowering to the south of the railway line and associated works to the local water distribution network.

Alongside the creation of the earthworks platforms it is necessary to construction and install enabling infrastructure, including access and highways, potable water, foul water, electrical, gas and telecoms services.

4.2 Assumptions

4.2.1 Phasing & Programme

A number of phases will be required across such a large site and there is potential flexibility in the size and timing in phases.

For the purposes of the assessment of construction traffic the shortest programme has been adopted as this provides the most robust case in terms of total HGV movements per day. An earthworks delivery programme of approximately four years is therefore assumed. This has been developed based on an assumed five phases of works, as outlined below and illustrated in Figure 1 overleaf:

Phase 1: Excavation for flood mitigation works and associated works to water network.

Phase 2: Railway embankment works, the main access road connecting Cypress Drive to the station (sub-phase A) and all earthworks and enabling infrastructure south of Ty Ffynnon Reen (split into sub-phases B, C, D).

Phase 3: All earthworks and enabling infrastructure north of Ty Fynnon Reen and south of the secondary access road, which is also part of Phase 3. Phase 3 is split into sub-phases (A, B, C, D).

Phase 4: The area north of the secondary access with sub-phases A and B.

Phase 5: The North-East Corner of the site spit into sub-phases A, B and C.

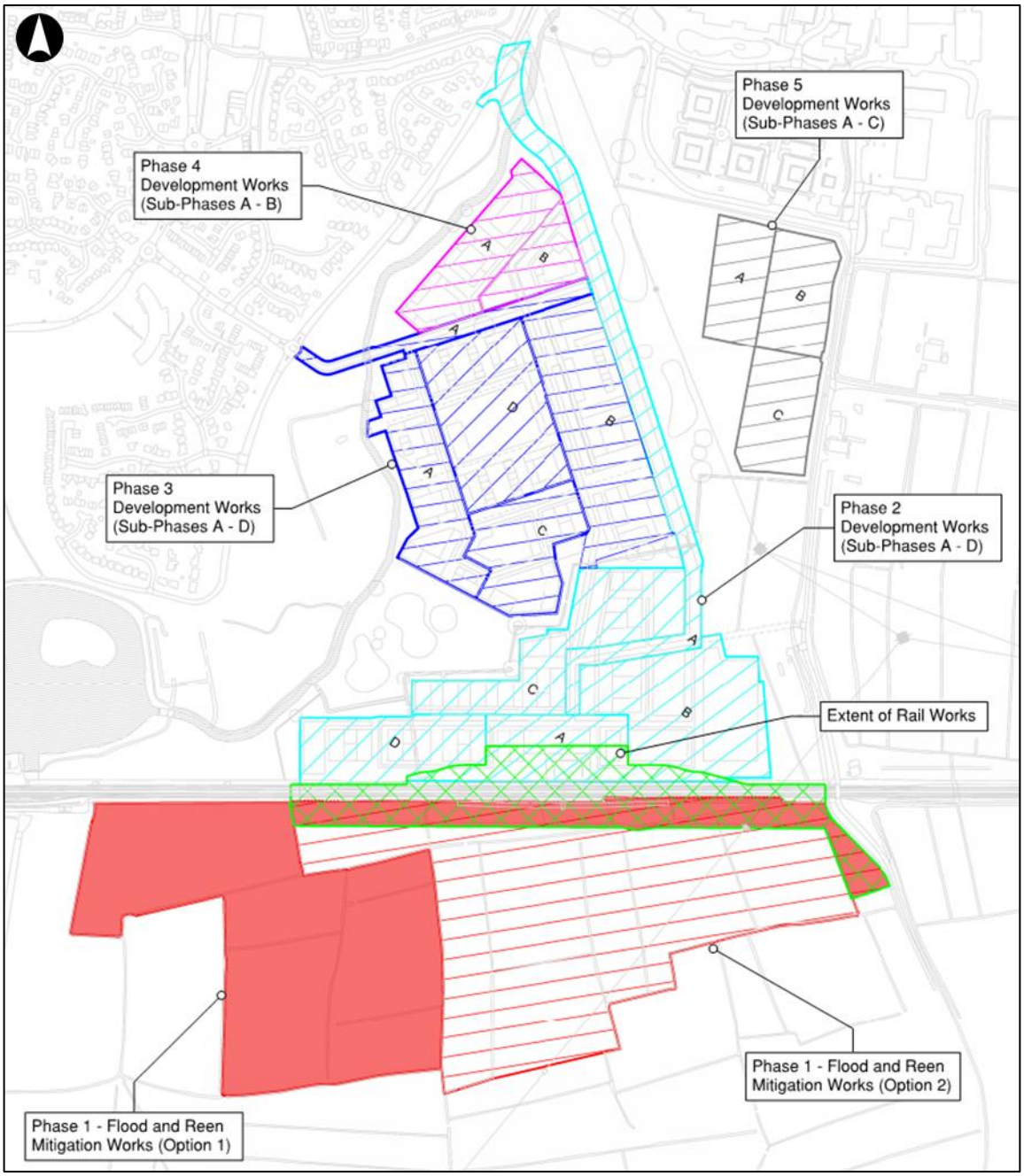

Figure 1: Draft Phasing Strategy (For Information Only)

The exact timing and order of phases will respond to a number of factors and be agreed as part of the reserved matters application. The phasing outlined above has been adopted as it provides the most robust case for construction traffic calculations.

4.2.2 Earthworks

The volume of earthworks associated with each phase has been calculated by the Arup engineering team. Calculations have been informed by geotechnical and topographic surveys. It is assumed that each of the platforms will be surcharged

and band drains installed to increase settlement times. Surplus material is then transferred to the next phase.

4.2.3 Construction Vehicle Movements

The following assumptions have been made to estimate the number of HGV movements that will be generated as a result of the earthworks and enabling infrastructure:

- $10m^3$ of earthworks could be transported by a single HGV; and
- $8m^3$ of other bulk construction materials such as asphalt and concrete could be transported by a single HGV.

Other deliveries including plant have been based on extensive engineering experience and informed by data gathered from consented schemes.

Application of the above to construction activities associated with each phase is provided as a spreadsheet in Appendix A.

4.2.4 Construction Employment Vehicle Movements

Contractor movements have been calculated using figures provided by contractors in support of schemes involving significant earthworks. The total number of contractors estimated to travel to site is based on a comparison of the estimated number of HGV movements to remain consistent with the business district calculations.

To provide for a robust assessment, it has been assumed that 80% of contractors will travel to the site by car.

4.3 Summary: Earthworks and Enabling Infrastructure

Table 12 below presents the average weekday HGV and LGV movements that are estimated to be generated by the earth works and enabling infrastructure.

Table 14: Average Weekday Construction Vehicle Movements (One-way)

Period	Ave. Weekday Movements	
	HGVs	LGVs
2021 – 2022	67	86
2022 – 2023	124	159
2023 – 2024	109	140
2024 – 2025	81	104

5 Further Considerations

Construction activities for a major development site will be undertaken in compliance with agreements made with the local planning authority under a Construction Method Statement (CMS), Construction Traffic Management Plan (CTMP) and a Construction Environmental Management Plan (CEMP).

It is proposed for the CTMP and the CEMP to be secured via planning conditions and agreed as part of the reserved matters application. An outline CEMP has been prepared in support of this outline planning application and appended to the Environmental Impact Assessment.

The following sections provide a broad outline of the items typically included within these documents.

5.1 Construction Method Statement

A CMS will be prepared by the contractor alongside the preparation of the reserved matters application. The Statement outlines the different procedures to be undertaken to complete the various works. Individual subcontractors will incorporate requirements for environmental control, based on good working practice, such as careful programming, resource conservation, adhering to health and safety regulations and quality procedures. In this way those involved with the demolition and construction phase, including subcontractors and site management, will be committed to adopt the agreed best practice and environmentally sound methods. The CMS will be prepared in consultation with and approved by the local authority. The subcontractors will be required to demonstrate how they will meet the target of the CMS and how the potential impacts will be offset, reduced or minimised. The CMS will include the following main items:

- The construction programme;
- A broad plan of the demolition and construction works, highlighting the various stages and their context within the project;
- Detailed site layout arrangements (including requirements for temporary works), plans for storage, accommodation, vehicular movements, delivery and access;
- Prohibited or restricted operations (locations, hours, etc.);
- Details of operations that are likely to result in disturbance, with an indication of the expected duration of each phase with key dates, including a procedure for prior notification to the local authority and relevant statutory and non-statutory (including neighbours) parties so that local arrangements can be agreed; and
- Site working hours.
- A procedure to ensure communication is maintained by the contractor with the local authority and local community to provide information on any operations likely to cause disturbance (through, for example, meetings and newsletters).

5.2 Managing Construction Traffic

A CTMP, prepared in consultation with highway and traffic authorities, provides the strategy for managing and mitigating the identified impacts. In addition, a CEMP outlines measures to mitigate the environmental impacts associated with construction, including construction traffic. It is proposed for CTMP and a CEMP to be secured as a planning condition and agreed as part of the reserved matters application.

A CTMP will empirically address the following:

- Site boundaries and main access/egress locations;
- Traffic management strategy; and
- Temporary and permanent closures and diversions of highways and public rights of way.
- HGV routing (both locally and if necessary strategically), including signing, holding areas/consolidation centres, abnormal loads, prohibited routes and means of monitoring HGV use.

Requirements for a CTMP are set out in Table 15 overleaf.

Table 15: CTMP Measures and Considerations

Measure	Considerations
Supply Chain Optimisation	The logistics industry has developed a range of techniques to maximise efficiencies within the supply chain. Perhaps most well-known is the concept of 'Just In Time' delivery, although general supply chain optimisation addresses procurement, storage, distribution and back loading activities to maximise load optimisation.
Delivery logistics	Delivery booking (deliveries by pre-arranged time slots), which can be used to enable delivery of materials either as part of a Just in Time operation so that materials only arrive on site when needed scheduled), or as part of a 'smoothing' operation to enable the peaks and troughs in demand to be evened out over a period of time, or to avoid certain time periods such as morning and evening peaks, or school start and finish times.
Load Consolidation	Off-site or off-phase consolidation of materials (where suitable off-site can be identified and procured), providing 'Just In Time' deliveries and reducing access congestion and on-site material storage.
Route Mapping	Routing and scheduling arrivals may make it possible to reduce trips to a site, by providing a more organised, logistical style method of operation. Routes should be surveyed, and swept path analysis undertaken.
Operating Hours	Restricted site operating hours, especially on sites adjacent to sensitive sites such as schools, hospitals and residential areas.
Construction Travel Plan	Employees to use walking, cycling and/or using public transport can reduce the number of trips to a site. A minibus may be used to transport workers in bulk to the site. This has the advantage of restricting traffic generation to the daily arrival and departure of staff employed on site, as well as removing the need for car parking facilities on site.
Programme Compression	The severity of any adverse impacts could be balanced by compressing the programme of phases, thereby causing greater disruption over a shorter time period, or overlapping certain activities.
Noise	Restrict operating hours, compress activities to minimise disruption.
Vibration	Restrict operating hours, compress activities to minimise disruption.
Dirt	Wheel washing and load covering.
Construction Methods	Consider alternative construction methods, such as prefabrication, onsite concrete mixing etc. to minimise external site trips.

Appendix A

Construction Traffic Associated with Earthworks and Infrastructure

Phasing	1											
	1	2	3	4	5	6	7	8	9	10	11	12
Phase 1	5	5	5	80	80	140	60	0	0	0	0	0
Enabling Groundworks Construction:												
Phase 2A and B	0	0	0	0	0	0	0	5	65	70	145	140
Phase 2C and D	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 4 A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 3A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Enabling Infrastructure Construction:												
Phase 2A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 2C and D	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5	0	0	0	0	0	0	0	0	0	0	0	0
Phase 4	0	0	0	0	0	0	0	0	0	0	0	0
Phase 3A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	5	5	80	80	140	60	5	65	70	145	140

Phasing	2											
	13	14	15	16	17	18	19	20	21	22	23	24
Phase 1	0	0	0	0	0	0	0	0	0	0	0	0
Enabling Groundworks Construction:												
Phase 2A and B	140	140	140	140	5	5	5	5	5	5	5	5
Phase 2C and D	0	0	0	0	0	0	0	0	0	0	5	10
Phase 5A, B and C	0	0	0	5	55	60	126	121	121	121	121	121
Phase 5B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 4 A and B	0	0	0	0	0	0	0	0	0	0	5	15
Phase 3A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Enabling Infrastructure Construction:												
Phase 2A and B	5	15	15	15	15	15	15	15	15	15	40	25
Phase 2C and D	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5	0	0	0	0	0	0	0	0	0	0	0	0
Phase 4	0	0	0	0	0	0	0	0	0	0	0	0
Phase 3A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Total	145	155	155	160	75	80	146	141	141	141	176	176

Phasing	3											
	Estimated Monthly Average Offsite Construction Vehicle Movements (per Day)											
	25	26	27	28	29	30	31	32	33	34	35	36
Phase 1	0	0	0	0	0	0	0	0	0	0	0	0
Enabling Groundworks Construction:												
Phase 2A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 2C and D	5	5	5	5	5	5	5	5	5	5	5	0
Phase 5A, B and C	5	5	5	5	5	10	5	0	0	0	0	0
Phase 5B	0	0	0	0	0	5	10	5	5	5	5	5
Phase 4 A and B	20	5	5	5	5	5	5	5	5	5	5	5
Phase 3A, B and C	0	0	0	0	0	0	0	0	0	0	0	5
Enabling Infrastructure Construction:												
Phase 2A and B	25	25	25	25	45	45	45	0	0	0	0	0
Phase 2C and D	0	0	0	0	0	0	0	0	0	25	25	25
Phase 5	0	0	0	0	5	30	30	30	65	65	65	105
Phase 4	0	0	0	0	0	0	0	0	0	30	25	25
Phase 3A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	40	40	40	65	100	100	45	80	135	130	170

Phasing	4											
	37	38	39	40	41	42	43	44	45	46	47	48
Phase 1	0	0	0	0	0	0	0	0	0	0	0	0
Enabling Groundworks Construction:												
Phase 2A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 2C and D	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5B	5	5	5	5	5	5	0	0	0	0	0	0
Phase 4 A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 3A, B and C	40	45	5	10	10	5	5	5	5	5	5	95
Enabling Infrastructure Construction:												
Phase 2A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 2C and D	25	25	25	45	45	45	0	0	0	0	0	0
Phase 5	105	105	15	0	15	15	15	50	105	105	90	0
Phase 4	25	25	25	15	15	15	0	0	0	0	0	0
Phase 3A, B and C	0	0	0	0	0	0	0	0	0	0	45	40
Total	200	205	75	75	90	85	20	55	110	110	140	135

Phasing	5											
	49	50	51	52	53	54	55	56	57	58	59	60
Phase 1	0	0	0	0	0	0	0	0	0	0	0	0
Enabling Groundworks Construction:												
Phase 2A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 2C and D	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5A, B and C	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 4 A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 3A, B and C	95	0	0	0	0	0	0	0	0	0	0	0
Enabling Infrastructure Construction:												
Phase 2A and B	0	0	0	0	0	0	0	0	0	0	0	0
Phase 2C and D	0	0	0	0	0	0	0	0	0	0	0	0
Phase 5	0	0	0	0	0	0	0	0	0	0	0	0
Phase 4	0	0	0	0	0	0	0	0	0	0	0	0
Phase 3A, B and C	40	40	40	40	15	15	15	0	0	0	0	0
Total	135	40	40	40	15	15	15	0	0	0	0	0