

Wrexham Glyndŵr University
Plas Coch Campus

Transport Assessment
Appendices

June 2018

Appendix A

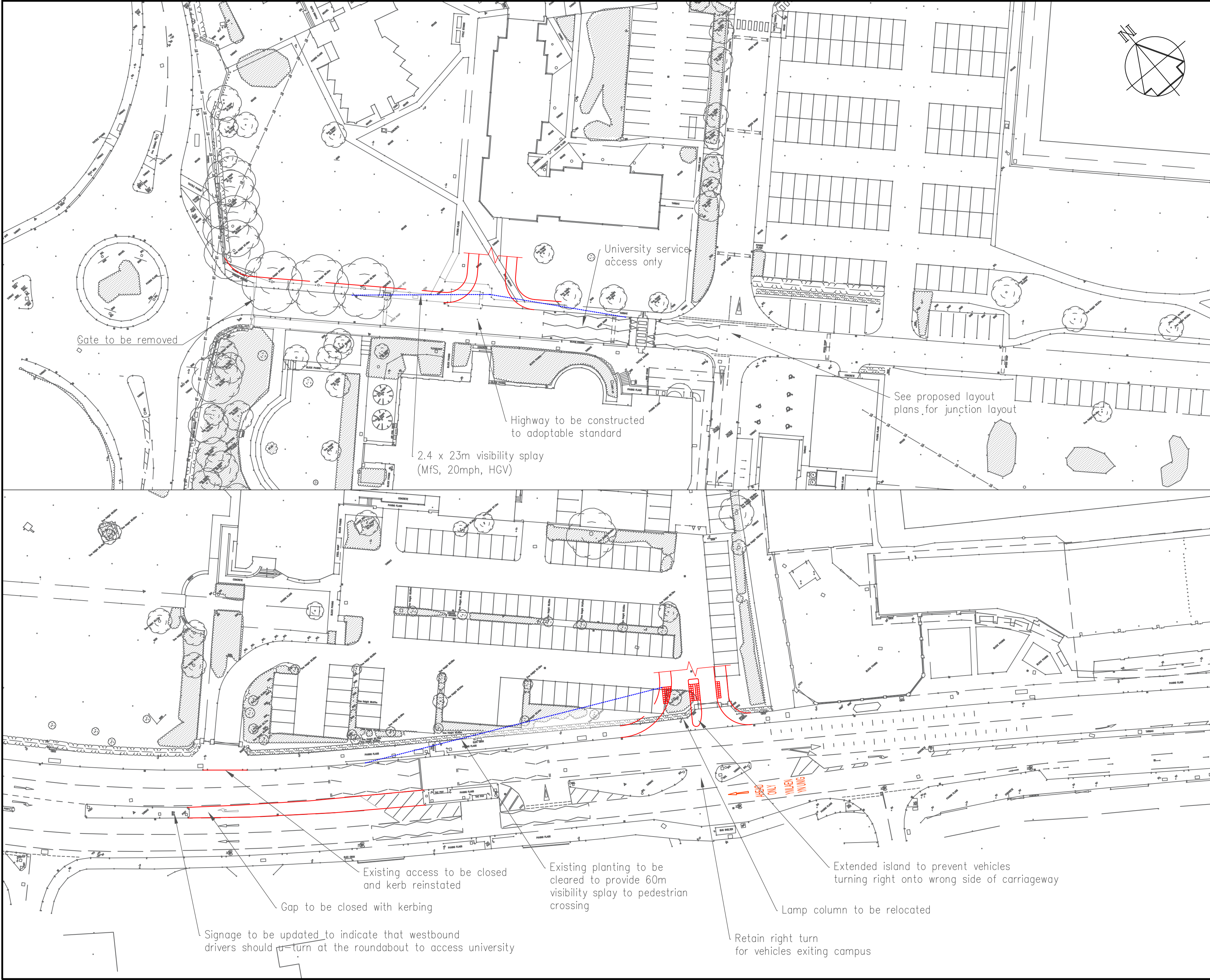
Proposed Site Layout



Scale - 1:1000 @A1

Appendix B

Proposed Access Layouts



Z:\Data\2600-2699\2627 Wrexham Glyndwr University\Drawings\Current			
Pre-application feedback	B	DP	26/07/18
Consultation	A	DP	14/06/18
REVISIONS	REV	Auth	DATE
Notes: Preliminary drawing - not for construction The acceptability of the proposed design is subject to further investigation, including utilities searched, land ownership enquiries, swept-path analysis and road safety audit. Proposed kerb line Proposed lining Visibility splay			
Planning submission	B	DP	26/07/18
Consultation	A	DP	14/06/18
Draft for information	-	DP	11/05/18
PURPOSE OF ISSUE	REV	Auth	DATE
 Integrated Transport Planning Ltd Cornwall Buildings 45 Newhall Street Birmingham B3 3QR Tel: 0121 213 4725 Fax: 0121 213 4793 http://www.itpworld.net			
CLIENT			
Wrexham Glyndwr University			
PROJECT			
Plas Coch Campus			
DRAWING TITLE			
Preliminary Access Layout			
BASE SCALE		DATE	
1: 500 @ A2		July 2018	
DRAWING NUMBER		REV	
DWG-2627-101		B	

Appendix C

TRICS

Calculation Reference: AUDIT-743001-180425-0437

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : G - STUDENT ACCOMMODATION
 MULTI-MODAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DV DEVON	2 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	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 residents
 Actual Range: 110 to 241 (units:)
 Range Selected by User: 15 to 700 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 28/11/13

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:

Wednesday	1 days
Thursday	2 days

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

Selected survey types:

Manual count	3 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 undertaken using machines.

Selected Locations:

Edge of Town Centre	2
Edge of Town	1

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

Selected Location Sub Categories:

Residential Zone	1
Built-Up Zone	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3	3 days
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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®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 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
100,001 to 125,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	1 days

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

Travel Plan:

No	3 days
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This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	3 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	DV-03-G-02	STUDENT FLATS	DEVON
	COWLEY BRIDGE ROAD		
	EXETER		
	Edge of Town		
	No Sub Category		
	Total Number of residents:	110	
	Survey date: WEDNESDAY	05/10/11	Survey Type: MANUAL
2	DV-03-G-04	STUDENT ACCOMMODATION	DEVON
	BONHAY ROAD		
	EXETER		
	Edge of Town Centre		
	Residential Zone		
	Total Number of residents:	241	
	Survey date: THURSDAY	28/11/13	Survey Type: MANUAL
3	WK-03-G-02	STUDENT FLATS	WARWICKSHIRE
	RAGLAN STREET		
	COVENTRY		
	Edge of Town Centre		
	Built-Up Zone		
	Total Number of residents:	197	
	Survey date: THURSDAY	17/10/13	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL VEHICLES
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	241	0.000	1	241	0.000	1	241	0.000
07:00 - 08:00	3	183	0.002	3	183	0.000	3	183	0.002
08:00 - 09:00	3	183	0.007	3	183	0.005	3	183	0.012
09:00 - 10:00	3	183	0.004	3	183	0.004	3	183	0.008
10:00 - 11:00	3	183	0.016	3	183	0.011	3	183	0.027
11:00 - 12:00	3	183	0.016	3	183	0.018	3	183	0.034
12:00 - 13:00	3	183	0.007	3	183	0.011	3	183	0.018
13:00 - 14:00	3	183	0.013	3	183	0.009	3	183	0.022
14:00 - 15:00	3	183	0.015	3	183	0.018	3	183	0.033
15:00 - 16:00	3	183	0.016	3	183	0.015	3	183	0.031
16:00 - 17:00	3	183	0.016	3	183	0.015	3	183	0.031
17:00 - 18:00	3	183	0.002	3	183	0.013	3	183	0.015
18:00 - 19:00	3	183	0.007	3	183	0.009	3	183	0.016
19:00 - 20:00	2	219	0.007	2	219	0.007	2	219	0.014
20:00 - 21:00	2	219	0.009	2	219	0.009	2	219	0.018
21:00 - 22:00	2	219	0.007	2	219	0.011	2	219	0.018
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.144			0.155			0.299

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:	110 - 241 (units:)
Survey date range:	01/01/10 - 28/11/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. 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 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	241	0.000	1	241	0.000	1	241	0.000
07:00 - 08:00	3	183	0.004	3	183	0.007	3	183	0.011
08:00 - 09:00	3	183	0.015	3	183	0.204	3	183	0.219
09:00 - 10:00	3	183	0.011	3	183	0.053	3	183	0.064
10:00 - 11:00	3	183	0.075	3	183	0.130	3	183	0.205
11:00 - 12:00	3	183	0.069	3	183	0.111	3	183	0.180
12:00 - 13:00	3	183	0.071	3	183	0.080	3	183	0.151
13:00 - 14:00	3	183	0.115	3	183	0.089	3	183	0.204
14:00 - 15:00	3	183	0.115	3	183	0.111	3	183	0.226
15:00 - 16:00	3	183	0.142	3	183	0.104	3	183	0.246
16:00 - 17:00	3	183	0.193	3	183	0.078	3	183	0.271
17:00 - 18:00	3	183	0.184	3	183	0.100	3	183	0.284
18:00 - 19:00	3	183	0.201	3	183	0.119	3	183	0.320
19:00 - 20:00	2	219	0.053	2	219	0.059	2	219	0.112
20:00 - 21:00	2	219	0.098	2	219	0.080	2	219	0.178
21:00 - 22:00	2	219	0.048	2	219	0.037	2	219	0.085
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	1.394			1.362			2.756		

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:	110 - 241 (units:)
Survey date range:	01/01/10 - 28/11/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-743001-180503-0526

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	2 days
	SF SUFFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	RI EAST RIDING OF YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of dwellings
Actual Range:	14 to 82 (units:)
Range Selected by User:	6 to 154 (units:)

Public Transport Provision:

Selection by:	Include all surveys
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Date Range:	01/01/10 to 18/09/17
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This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	2 days
Wednesday	1 days
Friday	1 days

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Residential Zone	4
No Sub Category	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:

C3	6 days
----	--------

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

10,001 to 15,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	1 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
50,001 to 75,000	3 days
125,001 to 250,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	4 days

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

Travel Plan:

No	6 days
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This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	6 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CA-03-C-02	BLOCK OF FLATS		CAMBRIDGESHIRE
	WESTFIELD ROAD			
	NETHERTON			
	PETERBOROUGH			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of dwellings:	44		
	Survey date: TUESDAY	18/10/11	Survey Type: MANUAL	
2	CA-03-C-03	BLOCKS OF FLATS		CAMBRIDGESHIRE
	CROMWELL ROAD			
	CAMBRIDGE			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of dwellings:	82		
	Survey date: MONDAY	18/09/17	Survey Type: MANUAL	
3	CB-03-C-03	FLATS & BUNGALOWS		CUMBRIA
	LOUND STREET			
	KENDAL			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	33		
	Survey date: MONDAY	09/06/14	Survey Type: MANUAL	
4	DC-03-C-02	FLATS IN BLOCKS		DORSET
	PALM COURT			
	SPA ROAD			
	WEYMOUTH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	14		
	Survey date: FRIDAY	28/03/14	Survey Type: MANUAL	
5	RI-03-C-01	FLATS		EAST RIDING OF YORKSHIRE
	465 PRIORY ROAD			
	HULL			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	20		
	Survey date: TUESDAY	13/05/14	Survey Type: MANUAL	
6	SF-03-C-03	BLOCKS OF FLATS		SUFFOLK
	TOLLGATE LANE			
	BURY ST EDMUNDS			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	30		
	Survey date: WEDNESDAY	03/12/14	Survey Type: MANUAL	

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

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	37	0.031	6	37	0.121	6	37	0.152
08:00 - 09:00	6	37	0.076	6	37	0.265	6	37	0.341
09:00 - 10:00	6	37	0.121	6	37	0.179	6	37	0.300
10:00 - 11:00	6	37	0.099	6	37	0.103	6	37	0.202
11:00 - 12:00	6	37	0.081	6	37	0.090	6	37	0.171
12:00 - 13:00	6	37	0.072	6	37	0.063	6	37	0.135
13:00 - 14:00	6	37	0.063	6	37	0.094	6	37	0.157
14:00 - 15:00	6	37	0.130	6	37	0.157	6	37	0.287
15:00 - 16:00	6	37	0.170	6	37	0.094	6	37	0.264
16:00 - 17:00	6	37	0.117	6	37	0.103	6	37	0.220
17:00 - 18:00	6	37	0.283	6	37	0.099	6	37	0.382
18:00 - 19:00	6	37	0.157	6	37	0.076	6	37	0.233
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	1.400			1.444			2.844		

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:	14 - 82 (units:)
Survey date range:	01/01/10 - 18/09/17
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. 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 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	37	0.058	6	37	0.323	6	37	0.381
08:00 - 09:00	6	37	0.143	6	37	0.655	6	37	0.798
09:00 - 10:00	6	37	0.274	6	37	0.404	6	37	0.678
10:00 - 11:00	6	37	0.184	6	37	0.260	6	37	0.444
11:00 - 12:00	6	37	0.229	6	37	0.233	6	37	0.462
12:00 - 13:00	6	37	0.179	6	37	0.197	6	37	0.376
13:00 - 14:00	6	37	0.175	6	37	0.206	6	37	0.381
14:00 - 15:00	6	37	0.238	6	37	0.363	6	37	0.601
15:00 - 16:00	6	37	0.413	6	37	0.193	6	37	0.606
16:00 - 17:00	6	37	0.296	6	37	0.215	6	37	0.511
17:00 - 18:00	6	37	0.641	6	37	0.220	6	37	0.861
18:00 - 19:00	6	37	0.395	6	37	0.184	6	37	0.579
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.225			3.453			6.678

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:	14 - 82 (units:)
Survey date range:	01/01/10 - 18/09/17
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

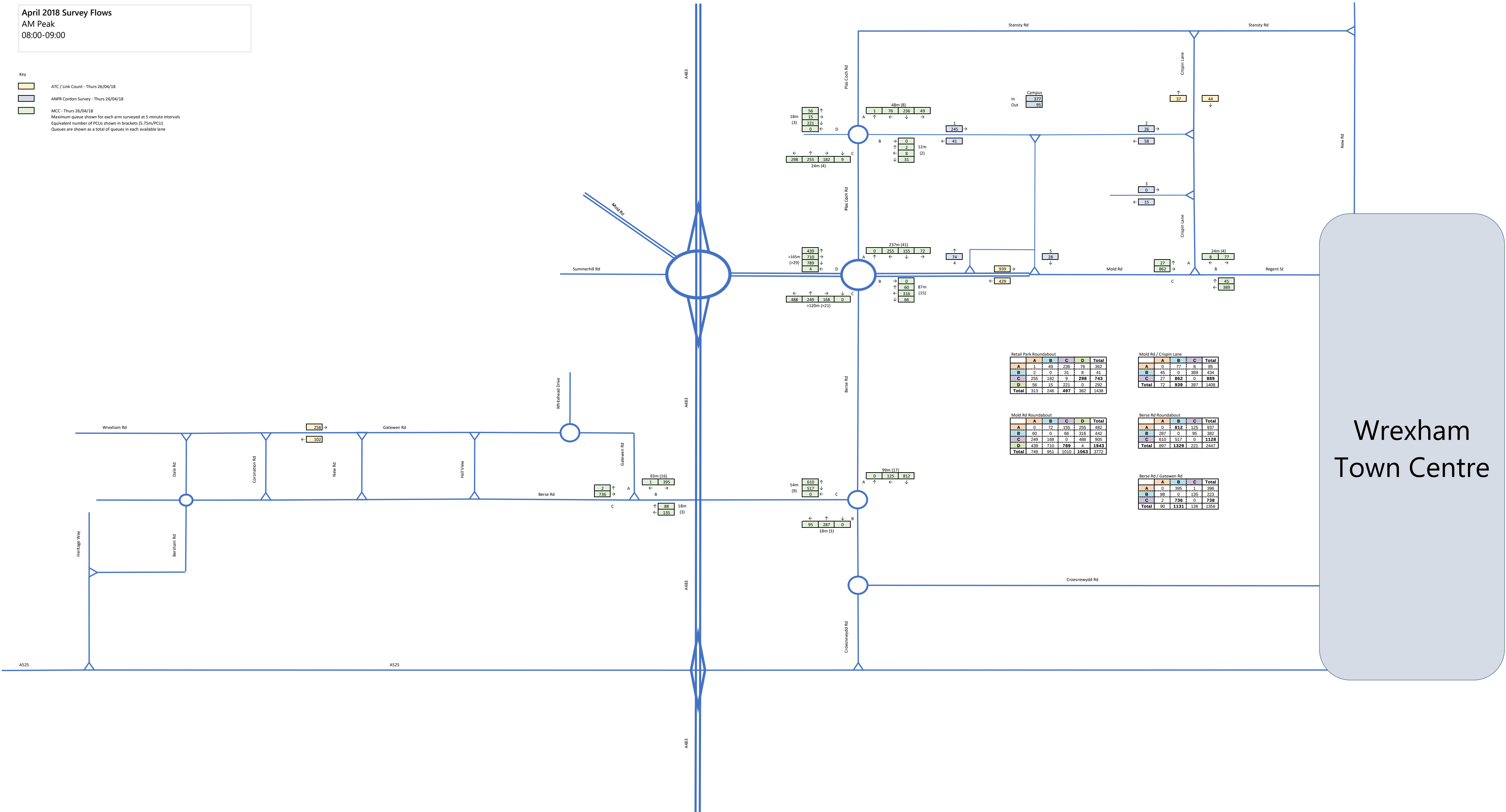
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

Appendix D

Census Data and Flow Diagrams

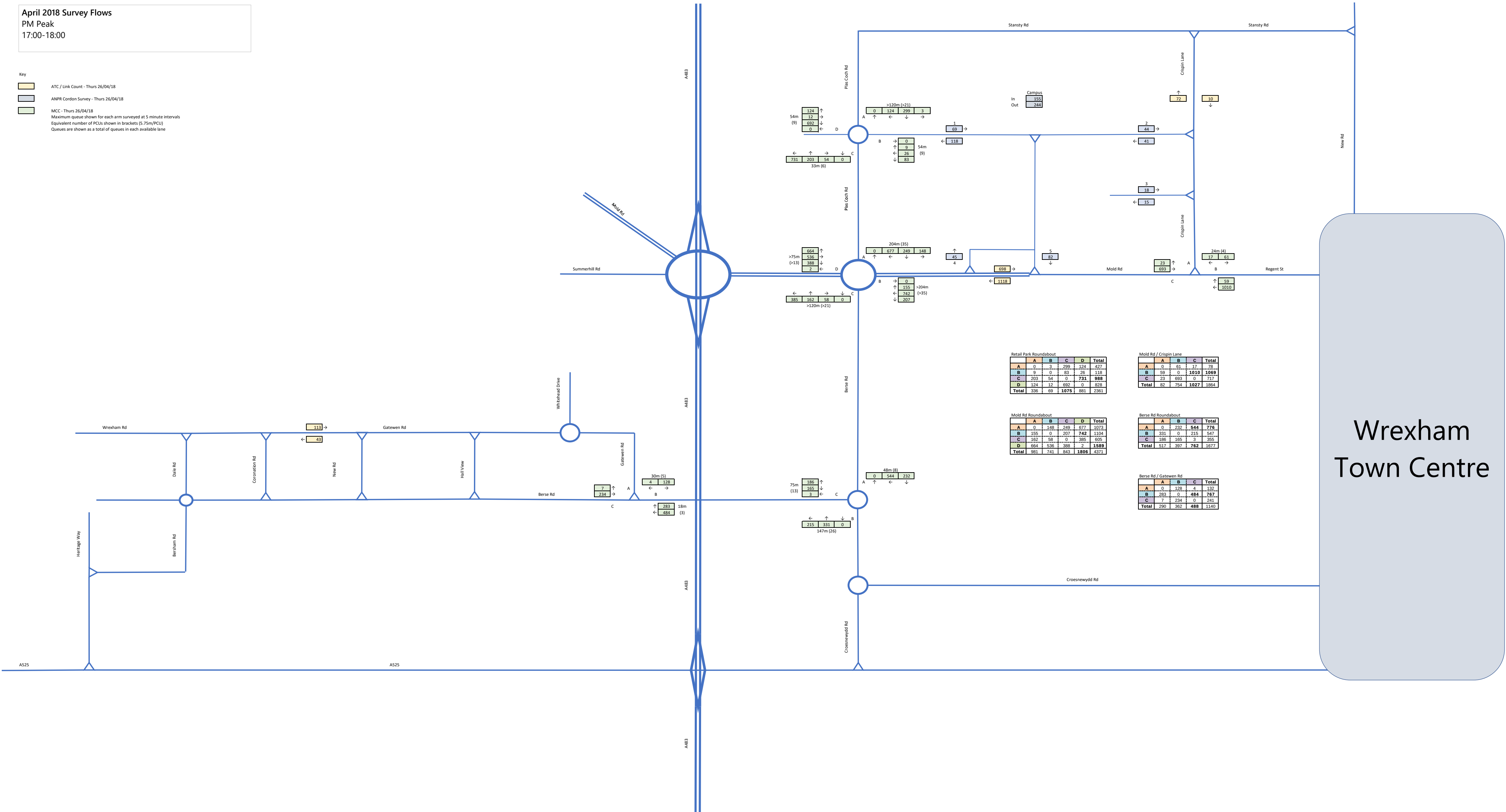
April 2018 Survey Flows
AM Peak
08:00-09:00

- Key
- ATC / Link Count - Thurs 26/04/18
 - ANPR Cordon Survey - Thurs 26/04/18
 - MCC - Thurs 26/04/18
Maximum queue shown for each arm surveyed at 5 minute intervals
Equivalent number of PCUs shown in brackets (5.75m/PCU)
Queues are shown as a total of queues in each available lane



April 2018 Survey Flows
PM Peak
17:00-18:00

- Key
- ATC / Link Count - Thurs 26/04/18
 - ANPR Cordon Survey - Thurs 26/04/18
 - MCC - Thurs 26/04/18
- Maximum queue shown for each arm surveyed at 5 minute intervals
Equivalent number of PCUs shown in brackets (5.75m/PCU)
Queues are shown as a total of queues in each available lane



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population All usual residents aged 16 and over in employment the week before the census

units Persons

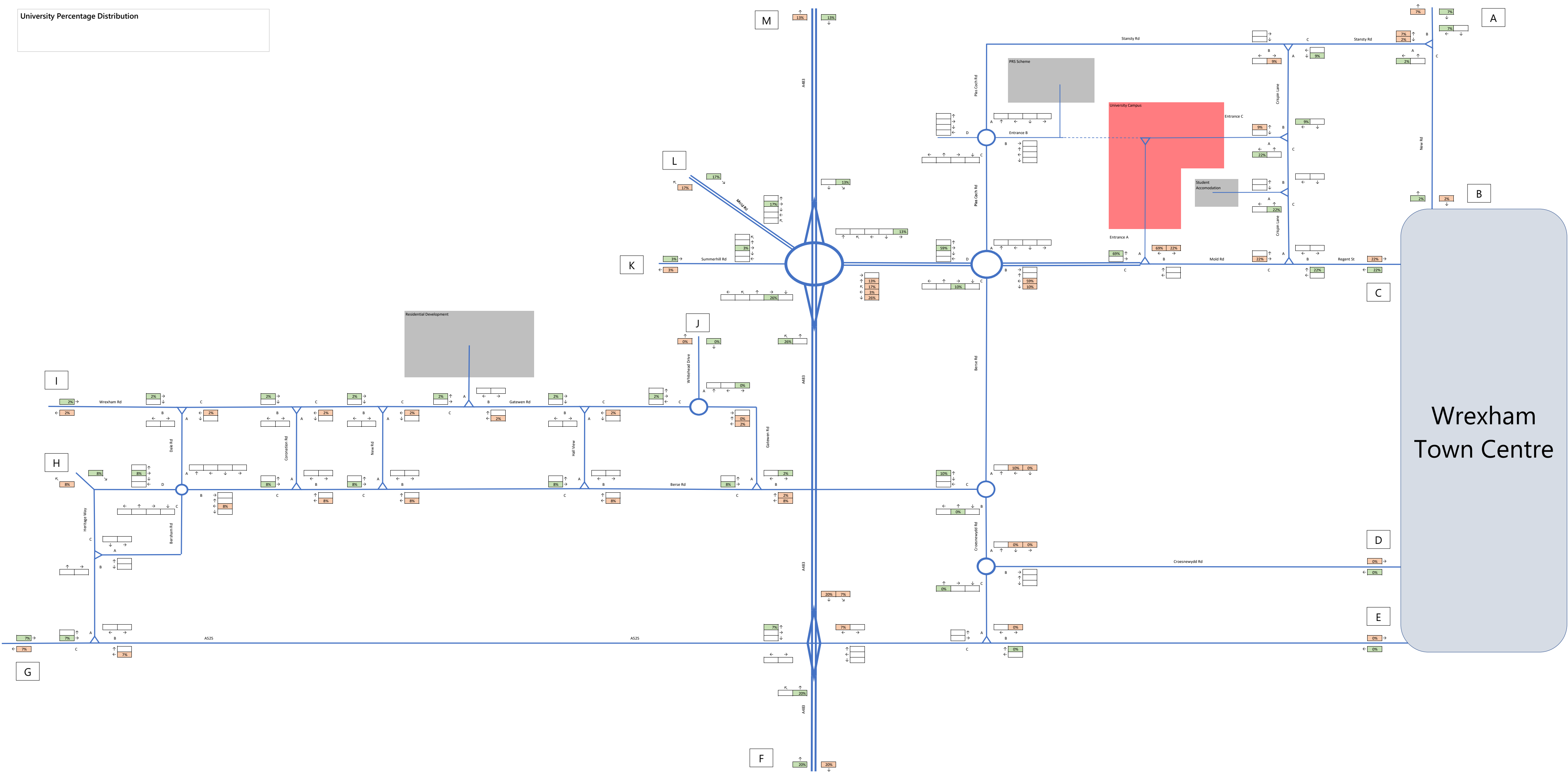
date 2011

method of travel to work Driving a car or van

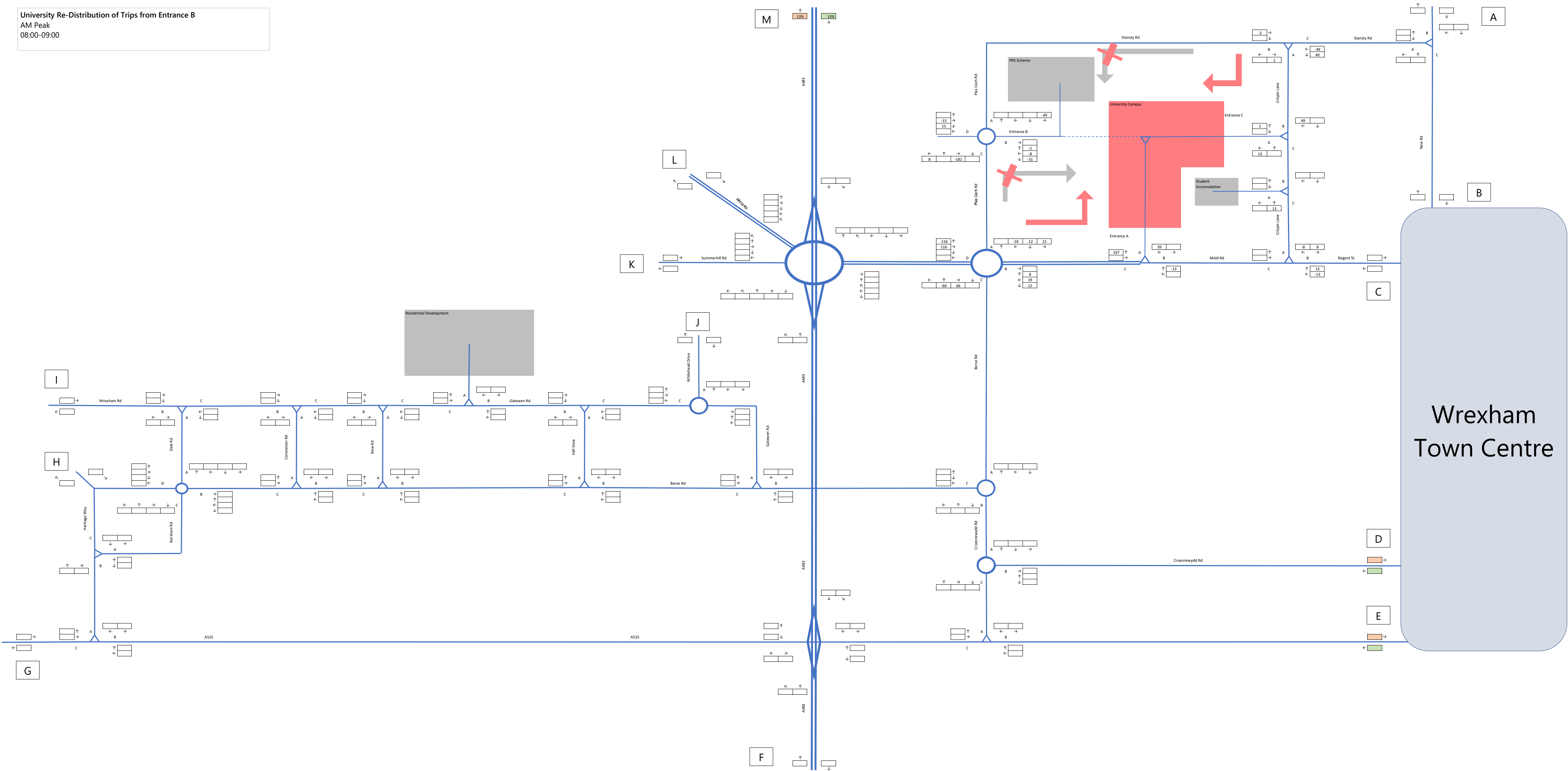
			A	B	C	D	E	F	G	H	I	J	K	L	M	Internal	
	place of work	Calculated	6%	2%	19%	0%	0%	18%	6%	7%	2%	0%	2%	15%	11%	6%	89%
usual residence	W02000088 : Wrexham 011	Adjusted	7%	2%	22%	0%	0%	20%	7%	8%	2%	0%	3%	17%	13%	6%	100%
W02000420 : Wrexham 020	366	6.5%	33%		33%												
W02000085 : Wrexham 008	324	5.8%															
W02000083 : Wrexham 006	274	4.9%								100%							
W02000082 : Wrexham 005	238	4.2%								50%	45%	5%					
W02000080 : Wrexham 003	223	4.0%	50%											50%			
W02000091 : Wrexham 014	217	3.9%			50%			50%									
W02000090 : Wrexham 013	211	3.8%						20%	80%								
W02000084 : Wrexham 007	209	3.7%	30%	20%	50%												
W02000093 : Wrexham 016	203	3.6%			50%			50%									
W02000088 : Wrexham 011	195	3.5%			100%												
W02000094 : Wrexham 017	188	3.4%						100%									
W02000089 : Wrexham 012	182	3.2%			100%												
W02000092 : Wrexham 015	173	3.1%						100%									
W02000081 : Wrexham 004	172	3.1%											80%	20%			
W02000086 : Wrexham 009	128	2.3%	30%	20%	50%												
W02000087 : Wrexham 010	120	2.1%		40%	60%												
W02000095 : Wrexham 018	101	1.8%			100%												
W02000096 : Wrexham 019	99	1.8%						100%									
Flintshire	705	12.6%												100%			
Cheshire West and Chester	322	5.7%														100%	
Denbighshire	226	4.0%						20%	70%							10%	
Shropshire	219	3.9%			20%			80%									
Wirral	70	1.2%														100%	
Conwy	50	0.9%						40%								60%	
Powys	33	0.6%						100%									
Cheshire East	33	0.6%														100%	
Liverpool	32	0.6%														100%	
Gwynedd	23	0.4%															
Warrington	14	0.2%															
Halton	13	0.2%															
St. Helens	10	0.2%															
Rhondda Cynon Taf	9	0.2%															
Telford and Wrekin	9	0.2%															
Stockport	9	0.2%															
Newcastle-under-Lyme	8	0.1%															
Trafford	8	0.1%															
Wigan	7	0.1%															
Isle of Anglesey	6	0.1%															
Wyre Forest	6	0.1%															
Blaenau Gwent	5	0.1%															
Manchester	5	0.1%															
Knowsley	4	0.1%															
Neath Port Talbot	3	0.1%															
Pembrokeshire	3	0.1%															
Swansea	3	0.1%															
Bolton	3	0.1%															
Salford	3	0.1%															
Tameside	3	0.1%															
Cardiff	2	0.0%															
Ceredigion	2	0.0%															
Sandwell	2	0.0%															
Staffordshire Moorlands	2	0.0%															
Tamworth	2	0.0%															
Bury	2	0.0%															
Carlisle	2	0.0%															
Oldham	2	0.0%															
Sefton	2	0.0%															
Caerphilly	1	0.0%															
Carmarthenshire	1	0.0%															
Merthyr Tydfil	1	0.0%															
Monmouthshire	1	0.0%															
The Vale of Glamorgan	1	0.0%															
Cannock Chase	1	0.0%															
Lichfield	1	0.0%															
Solihull	1	0.0%															
Stratford-on-Avon	1	0.0%															
Warwick	1	0.0%															
Worcester	1	0.0%															
Blackpool	1	0.0%															
Burnley	1	0.0%															
Hyndburn	1	0.0%															
Preston	1	0.0%															
South Ribble	1	0.0%															
West Lancashire	1	0.0%															
East	25	0.4%															
South East	22	0.4%															
Yorkshire and The Humber	18	0.3%															
South West	15	0.3%															
East Midlands	10	0.2%															
London	9	0.2%															
North East	8	0.1%															
	5,609																

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

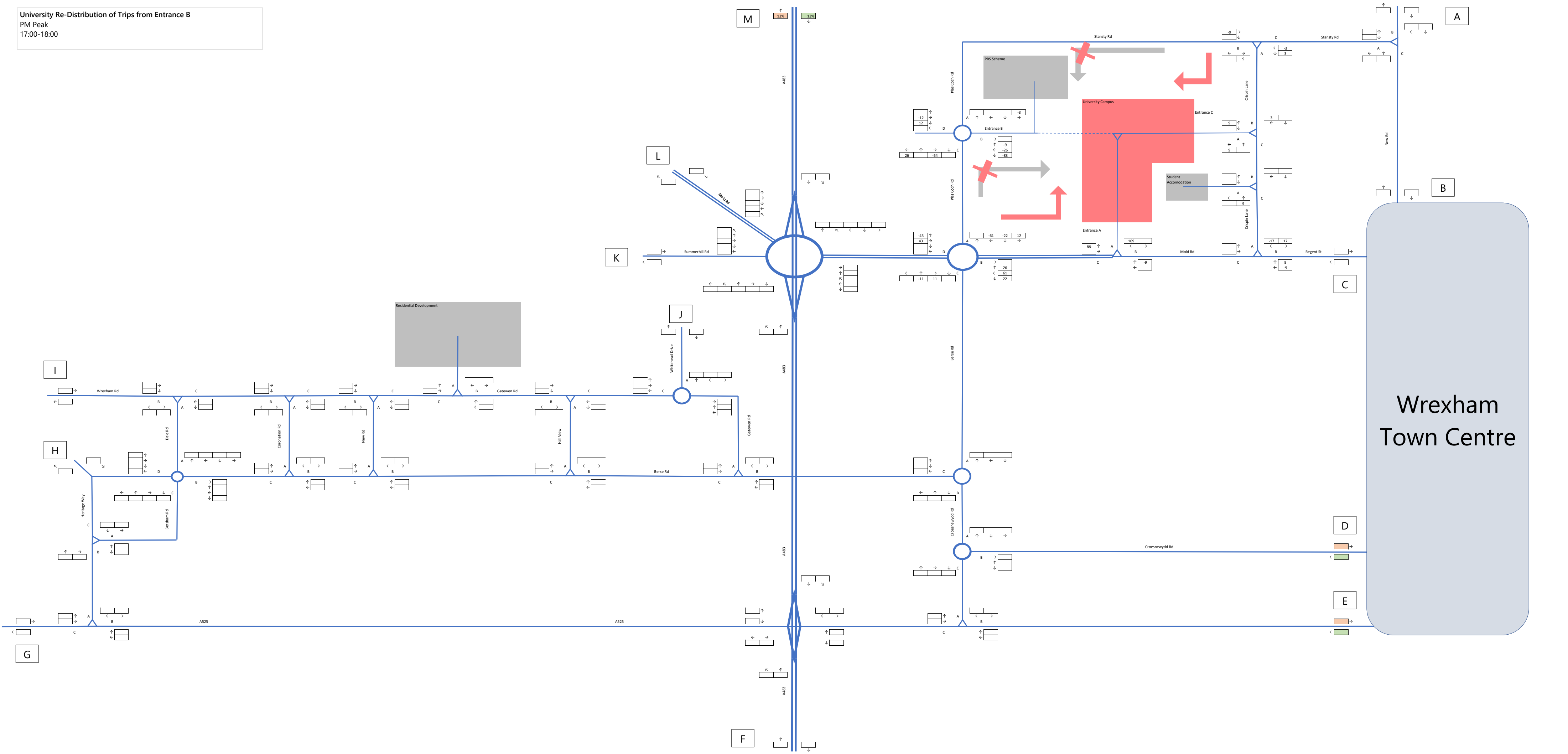
University Percentage Distribution



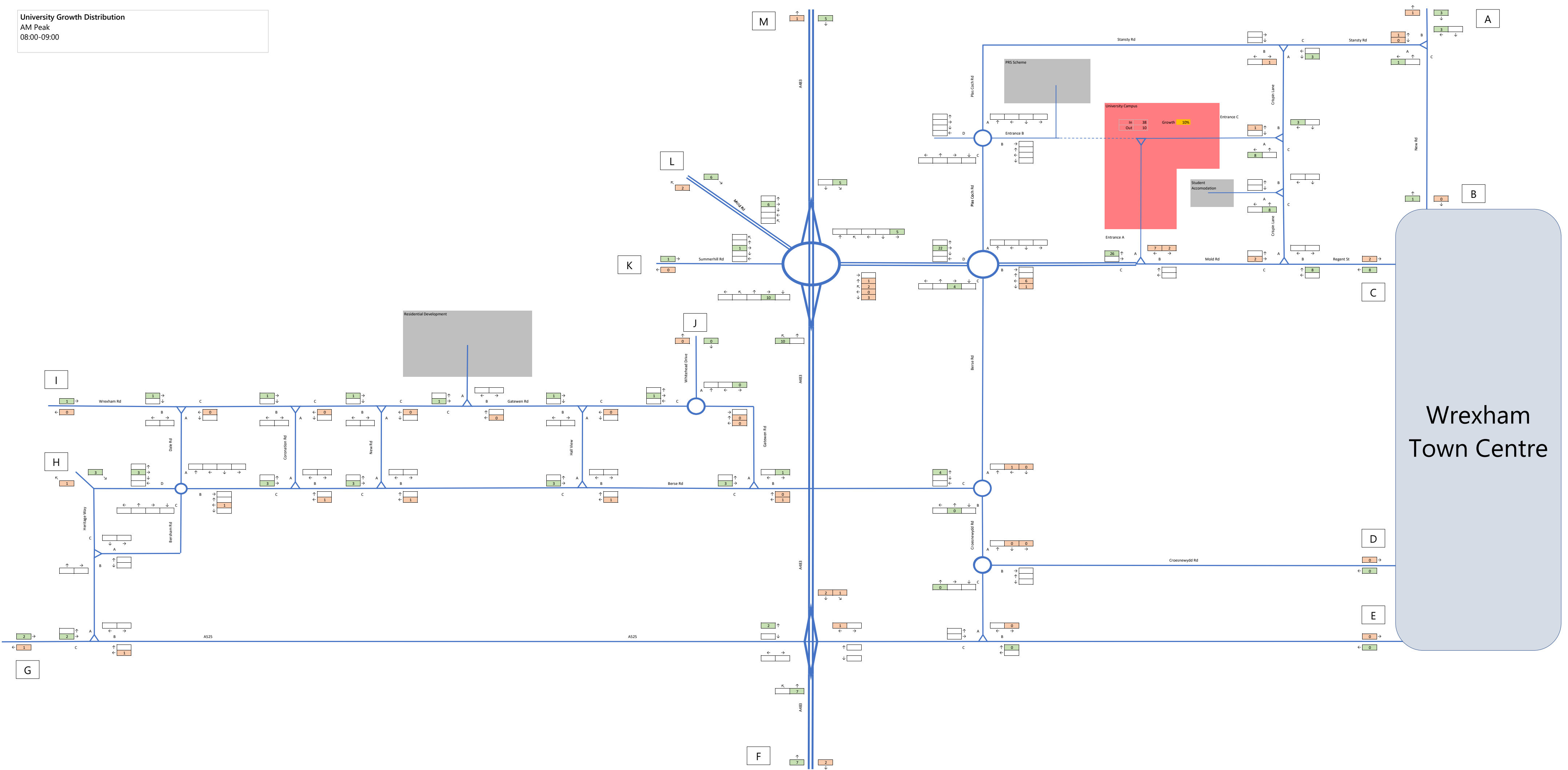
University Re-Distribution of Trips from Entrance B
AM Peak
08:00-09:00



University Re-Distribution of Trips from Entrance B
PM Peak
17:00-18:00

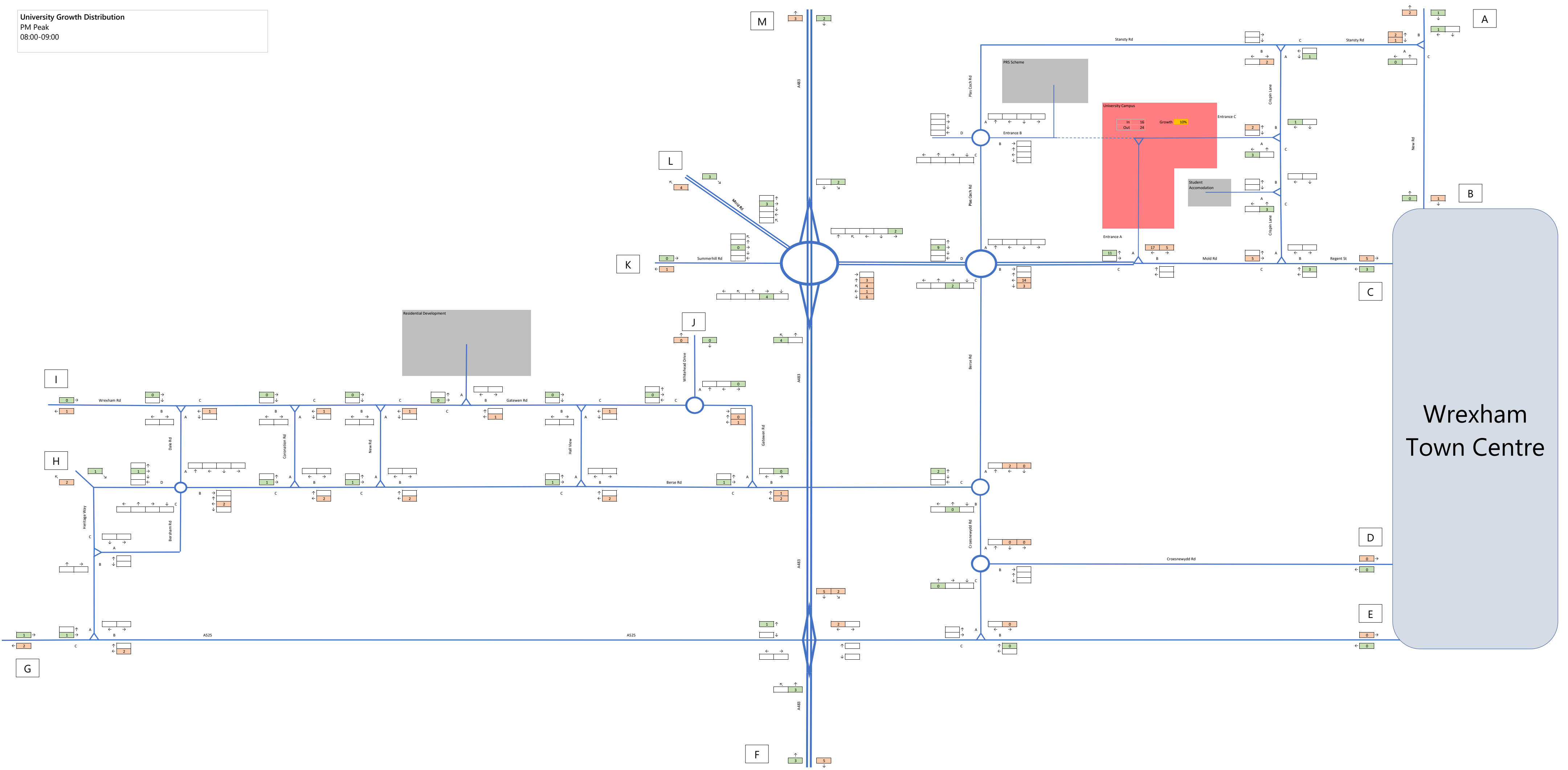


University Growth Distribution
AM Peak
08:00-09:00



University Growth Distribution

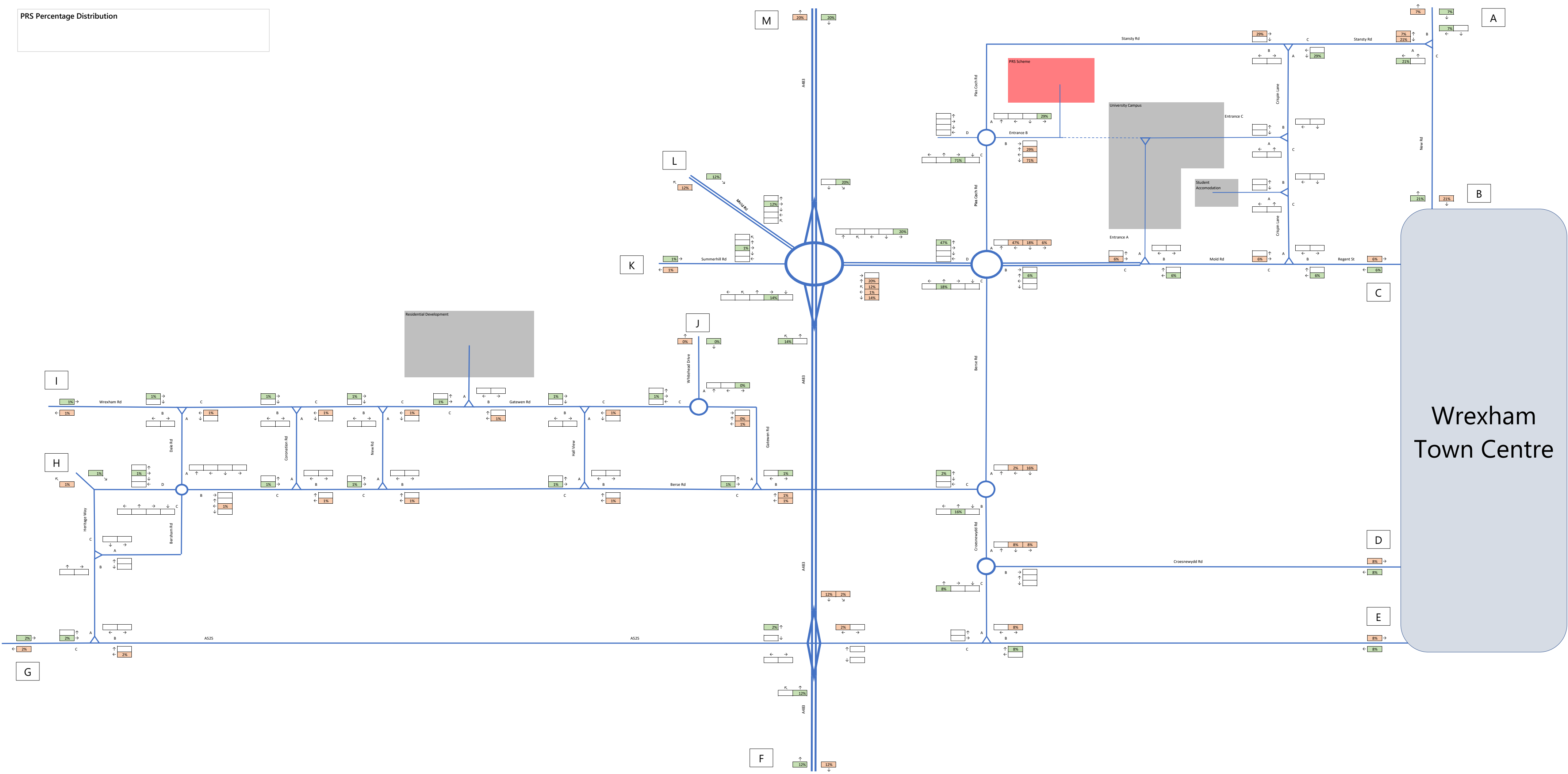
PM Peak
08:00-09:00



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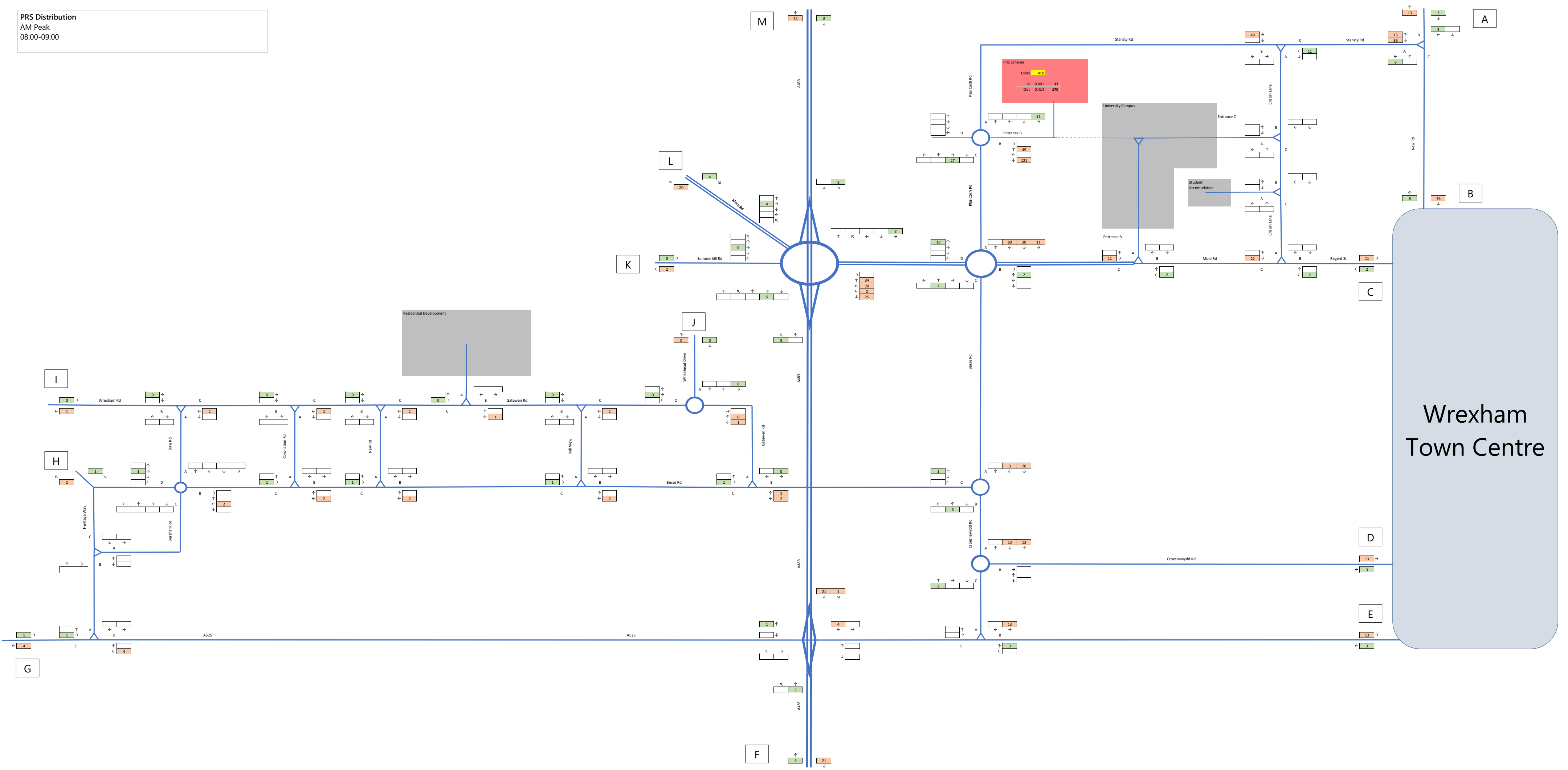
In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

PRS Percentage Distribution

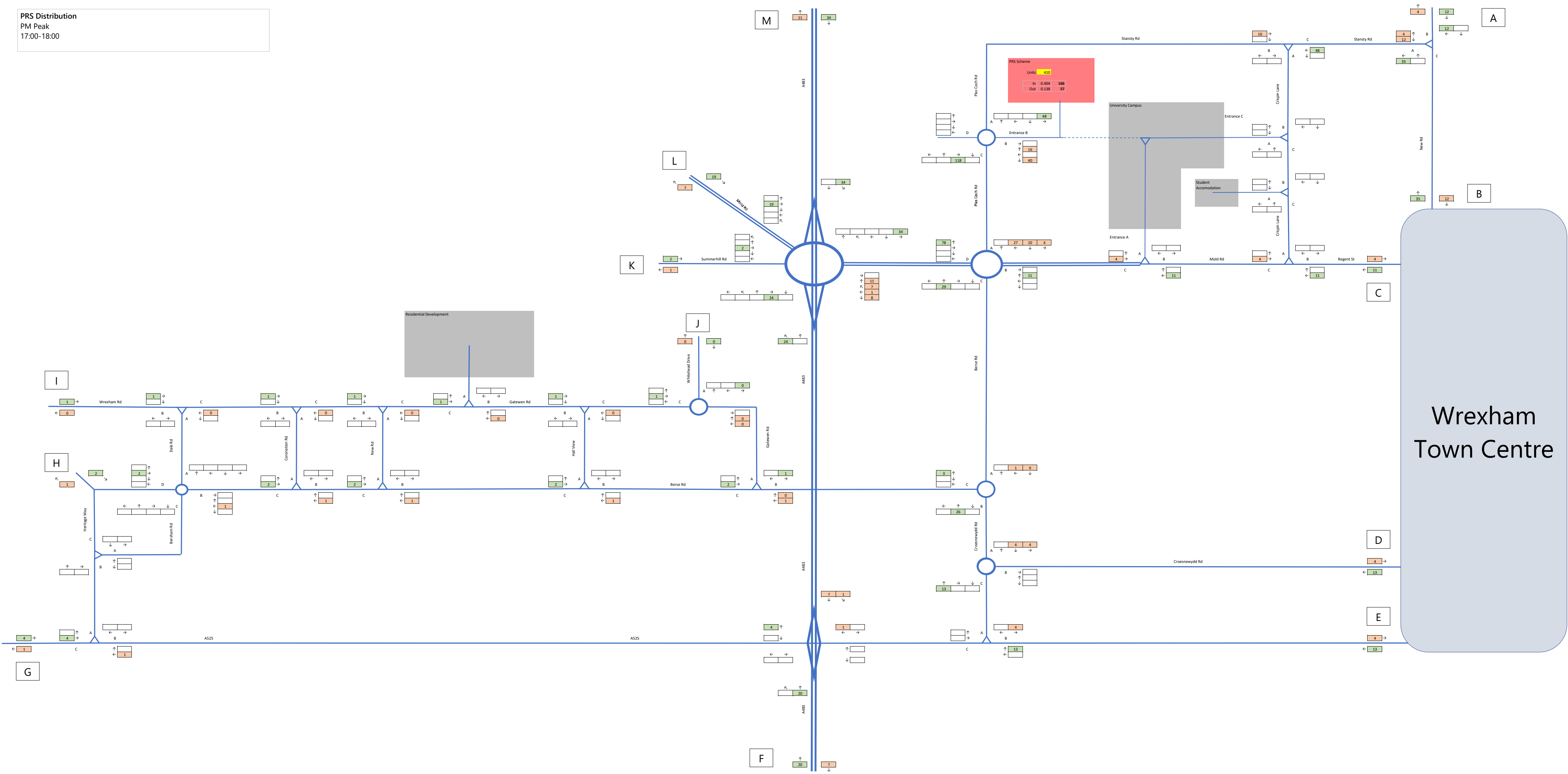


PRS Distribution

AM Peak
08:00-09:00



PRS Distribution
PM Peak
17:00-18:00



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

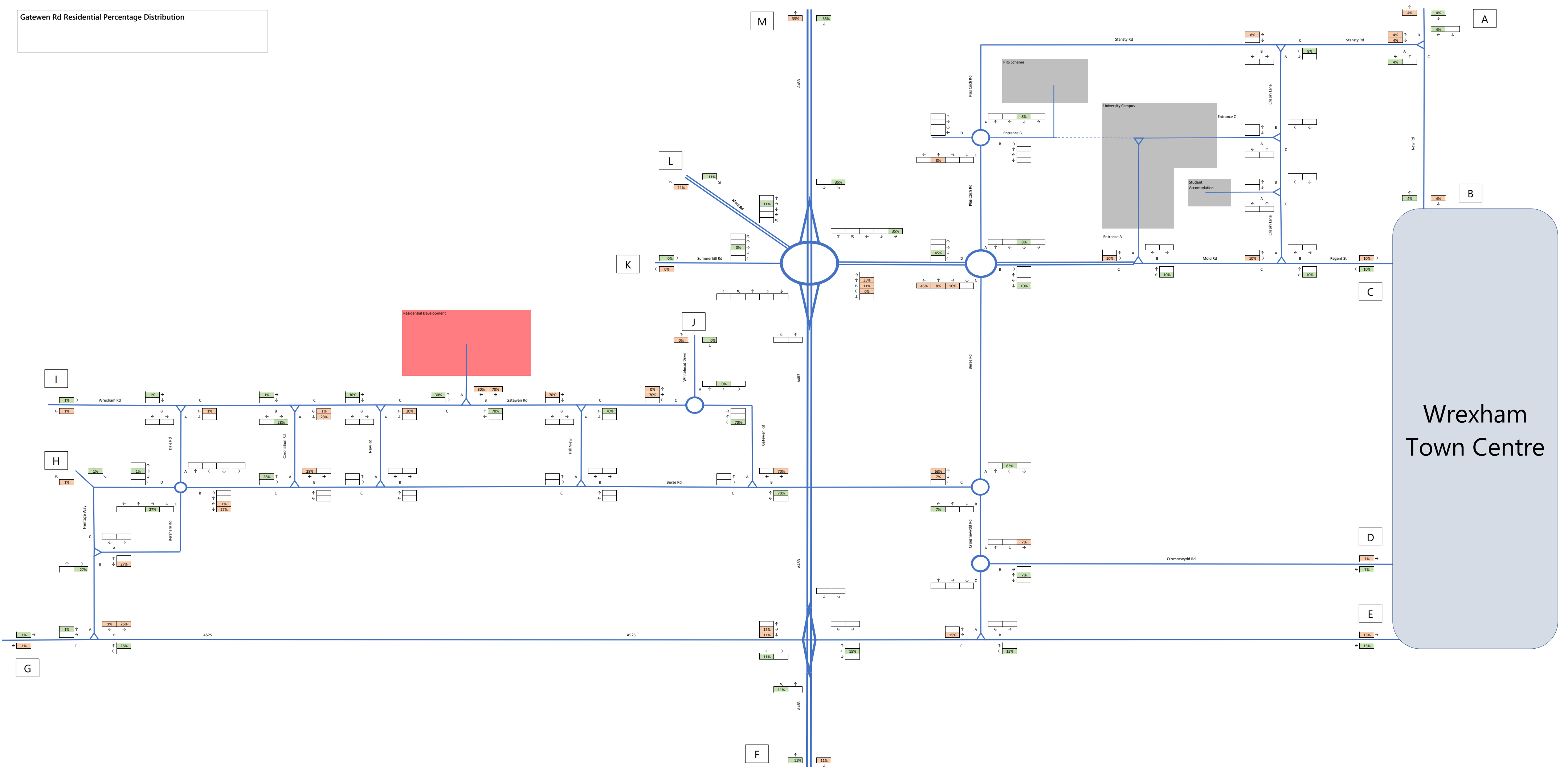
ONS Crown Copyright Reserved [from Nomis on 23 May 2018]

population
units
date
method of travel to work

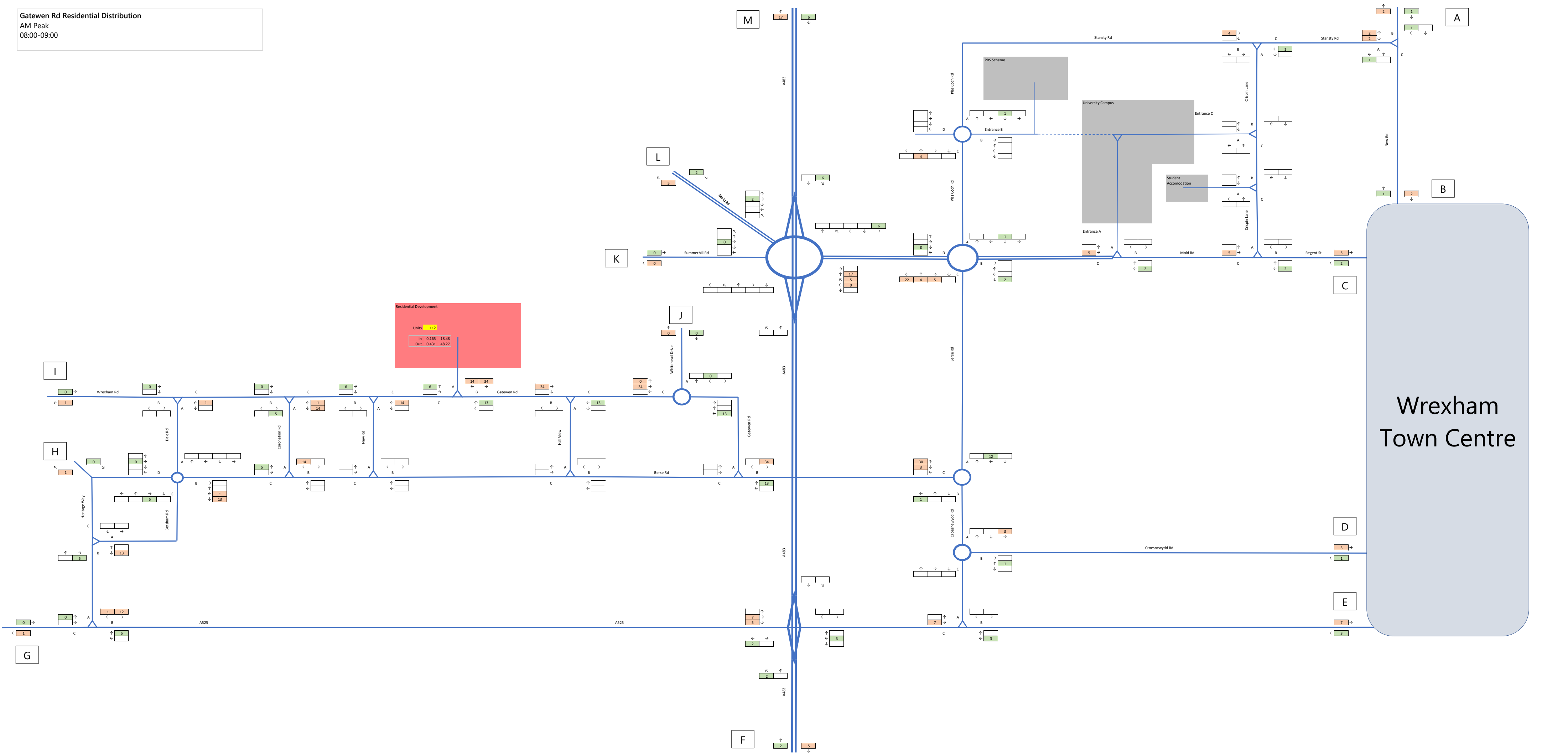
		Calculated	A	B	C	D	E	F	G	H	I	J	K	L	M	Internal	
			4%	3%	9%	7%	14%	10%	1%	1%	1%	0%	0%	10%	33%	1%	94%
place of work	TOTAL	Adjusted	4%	4%	10%	7%	15%	11%	1%	1%	1%	0%	0%	11%	35%	1%	100%
W02000420 : Wrexham 020	2,471	22.0%													100%		
W02000088 : Wrexham 011	1,493	13.3%				50%	50%										
W02000085 : Wrexham 008	1,158	10.3%	33%	33%	33%												
W02000089 : Wrexham 012	611	5.4%					100%										
W02000093 : Wrexham 016	271	2.4%					50%	50%									
W02000086 : Wrexham 009	257	2.3%			100%												
W02000091 : Wrexham 014	203	1.8%						100%									
W02000080 : Wrexham 003	190	1.7%	50%											50%			
W02000092 : Wrexham 015	180	1.6%						100%									
W02000087 : Wrexham 010	156	1.4%			100%												
W02000084 : Wrexham 007	141	1.3%			100%												
W02000095 : Wrexham 018	137	1.2%					100%										
W02000096 : Wrexham 019	117	1.0%						100%									
W02000082 : Wrexham 005	115	1.0%														100%	
W02000081 : Wrexham 004	114	1.0%									100%						
W02000090 : Wrexham 013	96	0.9%								100%							
W02000094 : Wrexham 017	78	0.7%						100%									
W02000083 : Wrexham 006	73	0.6%								50%	50%						
Flintshire	1,053	9.4%												100%			
Cheshire West and Chester	875	7.8%													100%		
Shropshire	425	3.8%			20%			80%									
Denbighshire	210	1.9%						20%	70%							10%	
Cheshire East	92	0.8%													100%		
Wirral	66	0.6%													100%		
Liverpool	61	0.5%													100%		
Conwy	61	0.5%						40%								60%	
Warrington	55	0.5%													100%		
Halton	48	0.4%															
Manchester	40	0.4%															
Powys	30	0.3%															
Trafford	18	0.2%															
Knowsley	16	0.1%															
Salford	16	0.1%															
Telford and Wrekin	15	0.1%															
Stockport	14	0.1%															
Gwynedd	12	0.1%															
Wigan	11	0.1%															
Newcastle-under-Lyme	8	0.1%															
Stafford	7	0.1%															
Sefton	6	0.1%															
St. Helens	6	0.1%															
Cardiff	6	0.1%															
Oldham	5	0.0%															
South Lakeland	5	0.0%															
Tameside	5	0.0%															
East Staffordshire	5	0.0%															
Preston	4	0.0%															
Birmingham	4	0.0%															
Stoke-on-Trent	4	0.0%															
Dudley	3	0.0%															
Ceredigion	3	0.0%															
Isle of Anglesey	3	0.0%															
Bolton	2	0.0%															
Pendle	2	0.0%															
South Ribble	2	0.0%															
Coventry	2	0.0%															
Sandwell	2	0.0%															
Newport	2	0.0%															
Blackburn with Darwen	1	0.0%															
Copeland	1	0.0%															
Fylde	1	0.0%															
Rochdale	1	0.0%															
West Lancashire	1	0.0%															
Wyre	1	0.0%															
Cannock Chase	1	0.0%															
Lichfield	1	0.0%															
North Warwickshire	1	0.0%															
Walsall	1	0.0%															
Warwick	1	0.0%															
Wolverhampton	1	0.0%															
Wychavon	1	0.0%															
Caerphilly	1	0.0%															
Carmarthenshire	1	0.0%															
Monmouthshire	1	0.0%															
Yorkshire and The Humber	62	0.6%															
East	25	0.2%															
South East	22	0.2%															
Scotland	19	0.2%															
East Midlands	16	0.1%															
London	15	0.1%															
South West	11	0.1%															
North East	5	0.0%															
		11,256															

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

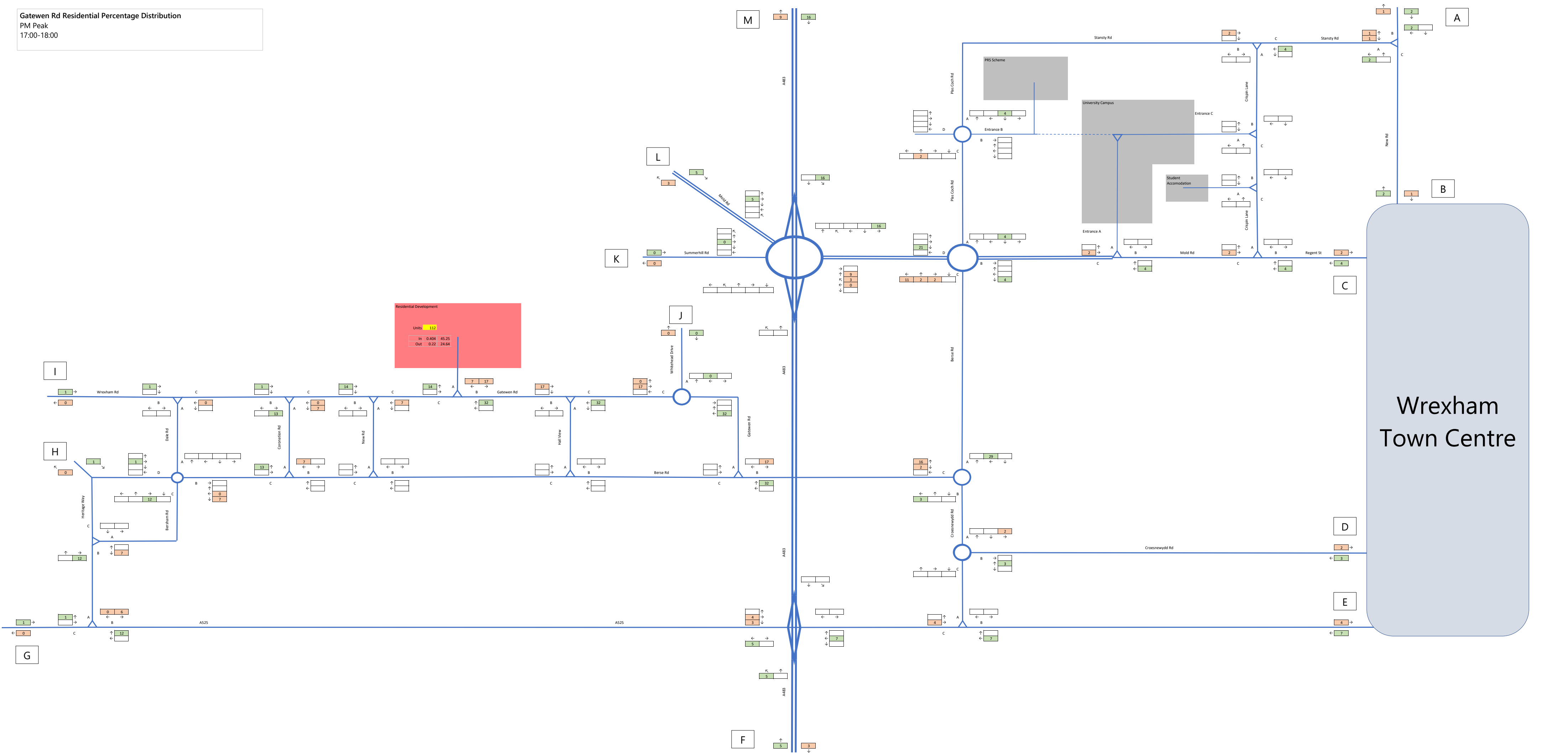
Gatewen Rd Residential Percentage Distribution



Gatewen Rd Residential Distribution
AM Peak
08:00-09:00



Gatewen Rd Residential Percentage Distribution
PM Peak
17:00-18:00

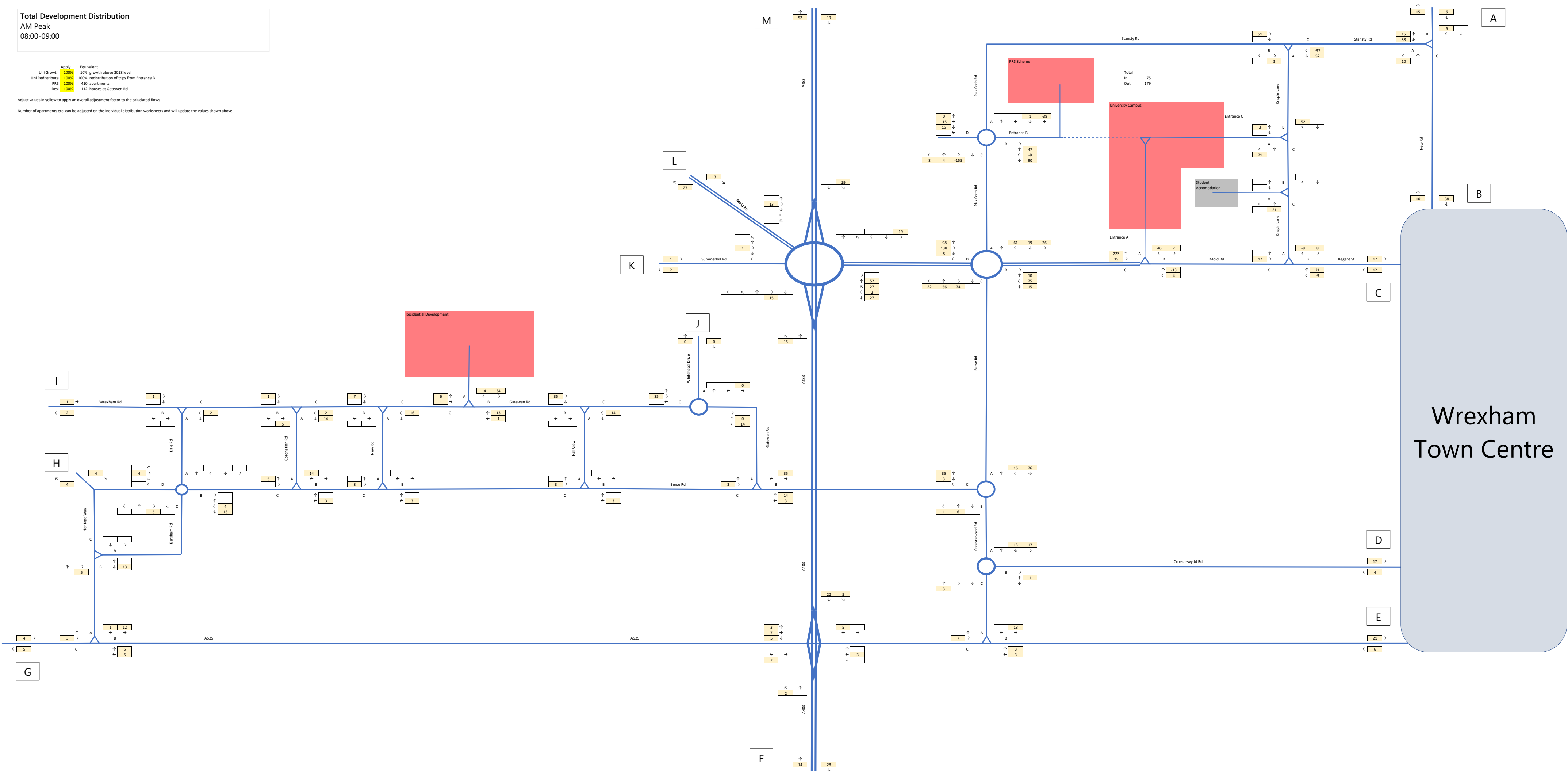


Total Development Distribution
AM Peak
08:00-09:00

	Apply	Equivalent
Uni Growth	100%	100% growth above 2018 level
Uni Redistribute	100%	100% redistribution of trips from Entrance B
PKS	100%	410 apartments
Res	100%	112 houses at Gatewen Rd

Adjust values in yellow to apply an overall adjustment factor to the calculated flows

Number of apartments etc. can be adjusted on the individual distribution worksheets and will update the values shown above

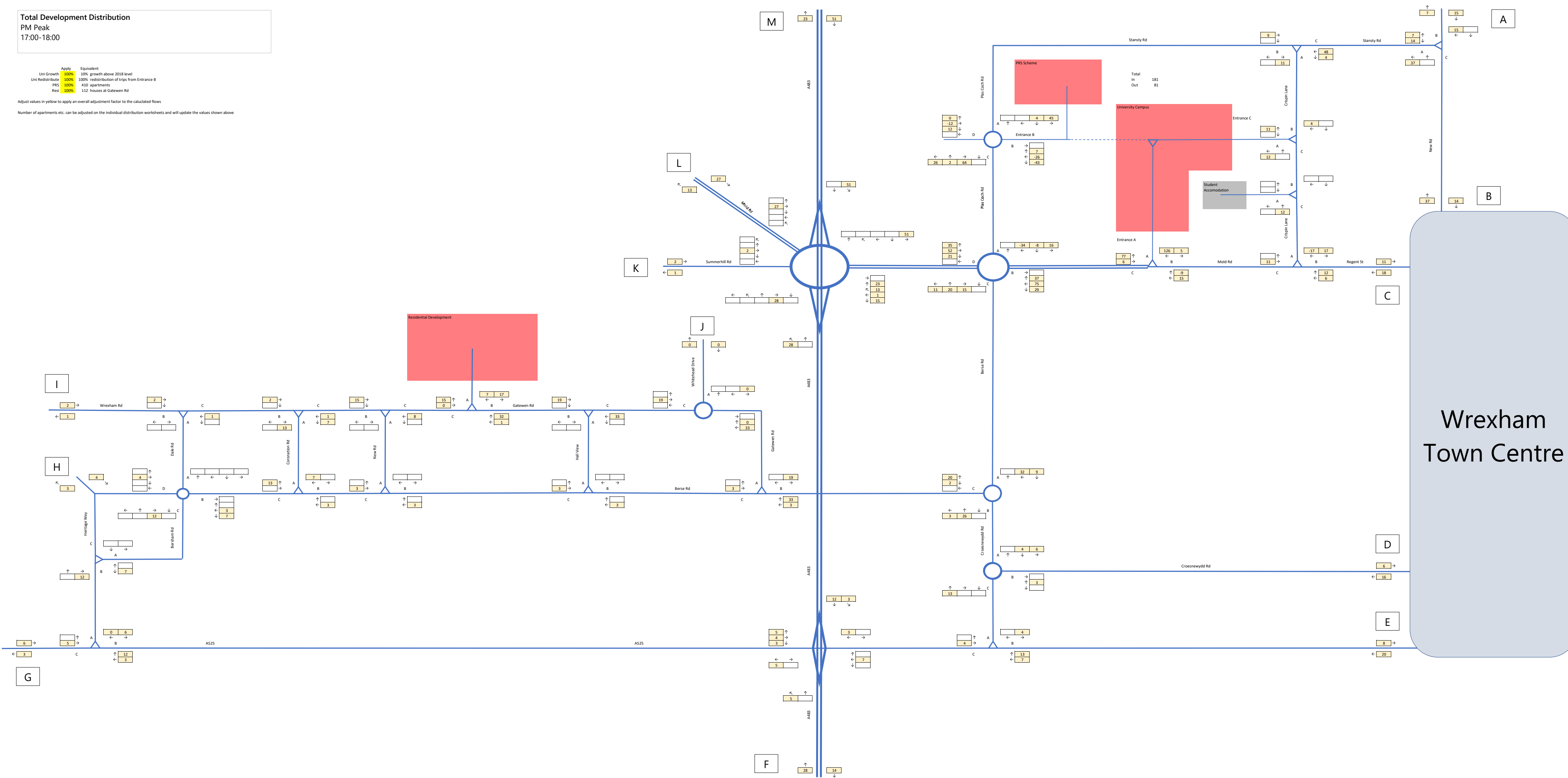


Total Development Distribution
PM Peak
17:00-18:00

	Apply	Equivalent
Uni Growth	100%	10% growth above 2018 level
Uni Redistribute	100%	100% redistribution of trips from Entrance B
PRS	100%	410 apartments
Res	100%	112 houses at Gatewen Rd

Adjust values in yellow to apply an overall adjustment factor to the calculated flows

Number of apartments etc. can be adjusted on the individual distribution worksheets and will update the values shown above



Appendix E

ARCADY Reports

Junctions 8
ARCADY 8 - Roundabout Module
Version: 8.0.6.541 [19821,26/11/2015] © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: PlasCochRdAccess_130618.arc8

Path: Z:\2600-2699\2627 Wrexham Glyndwr University\Data\Junction Assessment

Report generation date: 13/06/2018 09:18:34

Summary of junction performance

	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing Layout - 2018 Baseline						
Arm 1	0.48	4.35	0.32	0.85	6.60	0.46
Arm 2	0.07	5.99	0.07	0.62	17.50	0.39
Arm 3	0.72	3.17	0.41	1.30	4.34	0.57
Arm 4	0.20	2.25	0.16	0.72	2.86	0.42
Existing Layout - 2020 Baseline						
Arm 1	0.51	4.47	0.34	0.93	6.99	0.48
Arm 2	0.08	6.11	0.07	0.72	19.73	0.42
Arm 3	0.76	3.25	0.43	1.41	4.55	0.58
Arm 4	0.21	2.28	0.17	0.77	2.94	0.43
Existing Layout - 2020 Baseline + Dev						
Arm 1	0.46	4.05	0.32	1.26	8.56	0.56
Arm 2	0.44	8.51	0.31	0.75	20.64	0.43
Arm 3	0.79	3.38	0.44	1.75	5.19	0.64
Arm 4	0.21	2.25	0.16	0.82	3.14	0.45
Existing Layout - 2025 Baseline						
Arm 1	0.57	4.71	0.36	1.10	7.85	0.53
Arm 2	0.09	6.33	0.08	0.98	25.74	0.50
Arm 3	0.85	3.41	0.45	1.63	4.99	0.62
Arm 4	0.23	2.35	0.18	0.86	3.11	0.46
Existing Layout - 2025 Baseline + Dev						
Arm 1	0.51	4.24	0.34	1.52	9.86	0.61
Arm 2	0.47	8.94	0.32	1.04	27.24	0.52
Arm 3	0.88	3.55	0.46	2.04	5.77	0.67
Arm 4	0.23	2.31	0.18	0.92	3.33	0.48
Existing Layout - 2025 Baseline + Dev (Sensitivity)						
Arm 1	0.51	4.24	0.34	1.52	9.86	0.61
Arm 2	0.47	8.94	0.32	1.04	27.24	0.52
Arm 3	0.88	3.55	0.46	2.04	5.77	0.67
Arm 4	0.23	2.31	0.18	0.92	3.33	0.48

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

"D1 - 2018 Baseline, AM Peak" model duration: 07:45 - 09:15

"D2 - 2018 Baseline, PM Peak" model duration: 16:45 - 18:15

"D3 - 2020 Baseline, AM Peak" model duration: 07:45 - 09:15

"D4 - 2020 Baseline, PM Peak" model duration: 16:45 - 18:15

"D5 - 2020 Baseline + Dev, AM Peak" model duration: 07:45 - 09:15

"D6 - 2020 Baseline + Dev, PM Peak" model duration: 16:45 - 18:15

"D7 - 2025 Baseline, AM Peak" model duration: 07:45 - 09:15

"D8 - 2025 Baseline, PM Peak" model duration: 16:45 - 18:15

"D9 - 2025 Baseline + Dev, AM Peak" model duration: 07:45 - 09:15

"D10 - 2025 Baseline + Dev, PM Peak" model duration: 16:45 - 18:15

"D11 - Dev, AM Peak" model duration: 07:45 - 09:15

"D12 - Dev, PM Peak" model duration: 16:45 - 18:15

"D13 - 2025 Baseline + Dev (Sensitivity), AM Peak" model duration: 07:45 - 09:15

"D14 - 2025 Baseline + Dev (Sensitivity), PM Peak" model duration: 16:45 - 18:15

"D15 - Dev (Sensitivity), AM Peak" model duration: 07:45 - 09:15

"D16 - Dev (Sensitivity), PM Peak" model duration: 16:45 - 18:15

Run using Junctions 8.0.6.541 at 13/06/2018 09:18:25

File summary

Title	Wrexham Glyndwr University
Location	Plas Coch Campus
Site Number	
Date	13/06/2018
Version	2
Status	
Identifier	
Client	Wrexham Glyndwr University
Jobnumber	2627
Enumerator	Mark Lever
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

Existing Layout - 2018 Baseline, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2018 Baseline, AM Peak	2018 Baseline	AM Peak		ONE HOUR	07:45	09:15	90	15				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				3.36	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	362.00	100.000
2	ONE HOUR	✓	41.00	100.000
3	ONE HOUR	✓	744.00	100.000
4	ONE HOUR	✓	292.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.000	49.000	236.000	76.000
	2	2.000	0.000	31.000	8.000
	3	255.000	182.000	9.000	298.000
	4	56.000	15.000	221.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.32	4.35	0.48	A	332.18	498.27	32.32	3.89	0.36	32.32	3.89
2	0.07	5.99	0.07	A	37.62	56.43	5.19	5.52	0.06	5.19	5.52
3	0.41	3.17	0.72	A	682.71	1024.06	48.73	2.86	0.54	48.74	2.86
4	0.16	2.25	0.20	A	267.94	401.92	14.19	2.12	0.16	14.19	2.12

Existing Layout - 2018 Baseline, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2018 Baseline, PM Peak	2018 Baseline	PM Peak		ONE HOUR	16:45	18:15	90	15				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				4.89	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	426.00	100.000
2	ONE HOUR	✓	118.00	100.000
3	ONE HOUR	✓	988.00	100.000
4	ONE HOUR	✓	828.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	3.000	299.000	124.000
	2	9.000	0.000	83.000	26.000
	3	203.000	54.000	0.000	731.000
	4	124.000	12.000	692.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.46	6.60	0.85	A	390.91	586.36	52.33	5.35	0.58	52.33	5.35
2	0.39	17.50	0.62	C	108.28	162.42	33.36	12.32	0.37	33.37	12.33
3	0.57	4.34	1.30	A	906.61	1359.91	82.26	3.63	0.91	82.27	3.63
4	0.42	2.86	0.72	A	759.79	1139.68	48.18	2.54	0.54	48.18	2.54

Existing Layout - 2020 Baseline, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline, AM Peak	2020 Baseline	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				3.44	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.778	38.126	183.625	59.134
	2	1.556	0.000	24.120	6.225
	3	198.409	141.609	7.003	231.866
	4	43.572	11.671	171.954	0.000

Turning Proportions (PCU) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.929	45.526	219.266	70.611
	2	1.858	0.000	28.802	7.433
	3	236.919	169.095	8.362	276.870
	4	52.029	13.936	205.330	0.000

Turning Proportions (PCU) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.138	55.757	268.546	86.481
	2	2.276	0.000	35.275	9.103
	3	290.166	207.099	10.241	339.096
	4	63.723	17.069	251.477	0.000

Turning Proportions (PCU) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.138	55.757	268.546	86.481
	2	2.276	0.000	35.275	9.103
	3	290.166	207.099	10.241	339.096
	4	63.723	17.069	251.477	0.000

Turning Proportions (PCU) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.929	45.526	219.266	70.611
	2	1.858	0.000	28.802	7.433
	3	236.919	169.095	8.362	276.870
	4	52.029	13.936	205.330	0.000

Turning Proportions (PCU) - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.778	38.126	183.625	59.134
	2	1.556	0.000	24.120	6.225
	3	198.409	141.609	7.003	231.866
	4	43.572	11.671	171.954	0.000

Turning Proportions (PCU) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (07:45-08:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (07:45-08:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:00-08:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.34	4.47	0.51	A	343.31	514.96	34.13	3.98	0.38	34.13	3.98
2	0.07	6.11	0.08	A	38.88	58.32	5.45	5.61	0.06	5.45	5.61
3	0.43	3.25	0.76	A	705.58	1058.37	51.41	2.91	0.57	51.41	2.91
4	0.17	2.28	0.21	A	276.92	415.38	14.83	2.14	0.16	14.84	2.14

Existing Layout - 2020 Baseline, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline, PM Peak	2020 Baseline	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				5.19	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (16:45-17:00)

	To				
From		1	2	3	4
	1	0.000	2.330	232.216	96.304
	2	6.990	0.000	64.461	20.193
	3	157.658	41.939	0.000	567.726
	4	96.304	9.320	537.437	0.000

Turning Proportions (PCU) - Junction 1 - (16:45-17:00)

	To				
		1	2	3	4
From	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:00-17:15)

	To				
		1	2	3	4
From	1	0.000	2.782	277.289	114.996
	2	8.346	0.000	76.973	24.112
	3	188.260	50.079	0.000	677.920
	4	114.996	11.129	641.752	0.000

Turning Proportions (PCU) - Junction 1 - (17:00-17:15)

	To				
		1	2	3	4
From	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:15-17:30)

	To				
		1	2	3	4
From	1	0.000	3.407	339.608	140.841
	2	10.222	0.000	94.272	29.531
	3	230.570	61.334	0.000	830.279
	4	140.841	13.630	785.982	0.000

Turning Proportions (PCU) - Junction 1 - (17:15-17:30)

	To				
		1	2	3	4
From	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:30-17:45)

	To				
		1	2	3	4
From	1	0.000	3.407	339.608	140.841
	2	10.222	0.000	94.272	29.531
	3	230.570	61.334	0.000	830.279
	4	140.841	13.630	785.982	0.000

Turning Proportions (PCU) - Junction 1 - (17:30-17:45)

	To				
		1	2	3	4
From	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	0.000	2.782	277.289	114.996
	2	8.346	0.000	76.973	24.112
	3	188.260	50.079	0.000	677.920
	4	114.996	11.129	641.752	0.000

Turning Proportions (PCU) - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	0.000	2.330	232.216	96.304
	2	6.990	0.000	64.461	20.193
	3	157.658	41.939	0.000	567.726
	4	96.304	9.320	537.437	0.000

Turning Proportions (PCU) - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (16:45-17:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.48	6.99	0.93	A	403.26	604.89	56.33	5.59	0.63	56.33	5.59
2	0.42	19.73	0.72	C	111.70	167.55	37.39	13.39	0.42	37.40	13.39
3	0.58	4.55	1.41	A	935.25	1402.88	87.92	3.76	0.98	87.92	3.76
4	0.43	2.94	0.77	A	783.80	1175.69	50.84	2.59	0.56	50.85	2.59

Existing Layout - 2020 Baseline + Dev, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline + Dev, AM Peak	2020 Baseline + Dev	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				3.86	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.778	0.126	185.625	59.134
	2	36.187	0.000	91.124	0.202
	3	202.409	0.000	7.003	239.866
	4	43.572	0.000	186.954	0.000

Turning Proportions (PCU) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.00	0.00	0.76	0.24
	2	0.28	0.00	0.71	0.00
	3	0.45	0.00	0.02	0.53
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.929	7.526	221.266	70.611
	2	43.211	0.000	108.811	0.241
	3	240.919	13.095	8.362	284.870
	4	52.029	0.000	220.330	0.000

Turning Proportions (PCU) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.00	0.03	0.74	0.24
	2	0.28	0.00	0.71	0.00
	3	0.44	0.02	0.02	0.52
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.138	17.757	270.546	86.481
	2	52.923	0.000	133.266	0.295
	3	294.166	51.099	10.241	347.096
	4	63.723	2.069	266.477	0.000

Turning Proportions (PCU) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.00	0.05	0.72	0.23
	2	0.28	0.00	0.71	0.00
	3	0.42	0.07	0.01	0.49
	4	0.19	0.01	0.80	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.138	17.757	270.546	86.481
	2	52.923	0.000	133.266	0.295
	3	294.166	51.099	10.241	347.096
	4	63.723	2.069	266.477	0.000

Turning Proportions (PCU) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.00	0.05	0.72	0.23
	2	0.28	0.00	0.71	0.00
	3	0.42	0.07	0.01	0.49
	4	0.19	0.01	0.80	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.929	7.526	221.266	70.611
	2	43.211	0.000	108.811	0.241
	3	240.919	13.095	8.362	284.870
	4	52.029	0.000	220.330	0.000

Turning Proportions (PCU) - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.00	0.03	0.74	0.24
	2	0.28	0.00	0.71	0.00
	3	0.44	0.02	0.02	0.52
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.778	0.126	185.625	59.134
	2	36.187	0.000	91.124	0.202
	3	202.409	0.000	7.003	239.866
	4	43.572	0.000	186.954	0.000

Turning Proportions (PCU) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.00	0.00	0.76	0.24
	2	0.28	0.00	0.71	0.00
	3	0.45	0.00	0.02	0.53
	4	0.19	0.00	0.81	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (07:45-08:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.000	1.326	1.042
	4	1.052	1.000	1.061	1.000

Heavy Vehicle Percentages - Junction 1 - (07:45-08:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	0.0	32.6	4.2
	4	5.2	0.0	6.1	0.0

Average PCU Per Vehicle - Junction 1 - (08:00-08:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.147	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (08:00-08:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	14.7	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.042	1.326	1.042
	4	1.052	1.000	1.063	1.000

Heavy Vehicle Percentages - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	4.2	32.6	4.2
	4	5.2	0.0	6.3	0.0

Average PCU Per Vehicle - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.042	1.326	1.042
	4	1.052	1.000	1.063	1.000

Heavy Vehicle Percentages - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	4.2	32.6	4.2
	4	5.2	0.0	6.3	0.0

Average PCU Per Vehicle - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.147	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	14.7	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.000	1.326	1.042
	4	1.052	1.000	1.061	1.000

Heavy Vehicle Percentages - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	0.0	32.6	4.2
	4	5.2	0.0	6.1	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.32	4.05	0.46	A	343.31	514.96	31.19	3.63	0.35	31.19	3.63
2	0.31	8.51	0.44	A	155.42	233.13	28.37	7.30	0.32	28.38	7.30
3	0.44	3.38	0.79	A	705.58	1058.37	53.10	3.01	0.59	53.11	3.01
4	0.16	2.25	0.21	A	276.92	415.38	14.59	2.11	0.16	14.59	2.11

Existing Layout - 2020 Baseline + Dev, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2020 Baseline + Dev, PM Peak	2020 Baseline + Dev	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				5.88	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.000	35.455	235.228	96.304
	2	13.990	0.000	21.461	0.000
	3	159.164	89.368	0.000	587.300
	4	96.304	0.000	549.437	0.000

Turning Proportions (PCU) - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.00	0.10	0.64	0.26
	2	0.39	0.00	0.61	0.00
	3	0.19	0.11	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.000	42.337	280.885	114.996
	2	15.346	0.000	33.973	0.000
	3	190.058	106.715	0.000	701.294
	4	114.996	0.000	653.752	0.000

Turning Proportions (PCU) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.00	0.10	0.64	0.26
	2	0.31	0.00	0.69	0.00
	3	0.19	0.11	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.000	51.852	344.012	140.841
	2	17.222	0.000	51.272	3.531
	3	232.772	130.698	0.000	858.906
	4	140.841	1.630	797.982	0.000

Turning Proportions (PCU) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.00	0.10	0.64	0.26
	2	0.24	0.00	0.71	0.05
	3	0.19	0.11	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.000	51.852	344.012	140.841
	2	17.222	0.000	51.272	3.531
	3	232.772	130.698	0.000	858.906
	4	140.841	1.630	797.982	0.000

Turning Proportions (PCU) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.00	0.10	0.64	0.26
	2	0.24	0.00	0.71	0.05
	3	0.19	0.11	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.000	42.337	280.885	114.996
	2	15.346	0.000	33.973	0.000
	3	190.058	106.715	0.000	701.294
	4	114.996	0.000	653.752	0.000

Turning Proportions (PCU) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.00	0.10	0.64	0.26
	2	0.31	0.00	0.69	0.00
	3	0.19	0.11	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.000	35.455	235.228	96.304
	2	13.990	0.000	21.461	0.000
	3	159.164	89.368	0.000	587.300
	4	96.304	0.000	549.437	0.000

Turning Proportions (PCU) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.00	0.10	0.64	0.26
	2	0.39	0.00	0.61	0.00
	3	0.19	0.11	0.00	0.70
	4	0.15	0.00	0.85	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.56	8.56	1.26	A	447.30	670.95	72.35	6.47	0.80	72.36	6.47
2	0.43	20.64	0.75	C	111.70	167.55	38.60	13.82	0.43	38.60	13.82
3	0.64	5.19	1.75	A	1018.76	1528.14	105.80	4.15	1.18	105.81	4.15
4	0.45	3.14	0.82	A	783.80	1175.69	53.63	2.74	0.60	53.64	2.74

Existing Layout - 2025 Baseline, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline, AM Peak	2025 Baseline	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				3.60	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default	Vehicle Mix	Vehicle Mix	Vehicle Mix	PCU Factor	Default	Estimate	Turning	Turning	Turning
Mix	Over Time	Over Turn	Over Entry	HV (PCU)	Proportions	entry/exit counts	Vary Over Time	Vary Over Turn	Vary Over Entry
	✓	✓	✓	HV Percentages	2.00		✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.823	40.343	194.303	62.572
	2	1.647	0.000	25.523	6.587
	3	209.946	149.844	7.410	245.349
	4	46.106	12.350	181.954	0.000

Turning Proportions (PCU) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.983	48.173	232.017	74.717
	2	1.966	0.000	30.477	7.865
	3	250.697	178.929	8.848	292.971
	4	55.055	14.747	217.270	0.000

Turning Proportions (PCU) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.204	59.000	284.162	91.510
	2	2.408	0.000	37.326	9.633
	3	307.039	219.142	10.837	358.815
	4	67.428	18.061	266.101	0.000

Turning Proportions (PCU) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.204	59.000	284.162	91.510
	2	2.408	0.000	37.326	9.633
	3	307.039	219.142	10.837	358.815
	4	67.428	18.061	266.101	0.000

Turning Proportions (PCU) - Junction 1 - (08:30-08:45)

	To				
		1	2	3	4
From	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	0.983	48.173	232.017	74.717
	2	1.966	0.000	30.477	7.865
	3	250.697	178.929	8.848	292.971
	4	55.055	14.747	217.270	0.000

Turning Proportions (PCU) - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.823	40.343	194.303	62.572
	2	1.647	0.000	25.523	6.587
	3	209.946	149.844	7.410	245.349
	4	46.106	12.350	181.954	0.000

Turning Proportions (PCU) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.00	0.14	0.65	0.21
	2	0.05	0.00	0.76	0.20
	3	0.34	0.24	0.01	0.40
	4	0.19	0.05	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (07:45-08:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:30-08:45)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Average PCU Per Vehicle - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.010	1.326	1.043
	4	1.052	1.000	1.067	1.000

Heavy Vehicle Percentages - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	1.0	32.6	4.3
	4	5.2	0.0	6.7	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.36	4.71	0.57	A	363.27	544.90	37.60	4.14	0.42	37.61	4.14
2	0.08	6.33	0.09	A	41.14	61.72	5.93	5.77	0.07	5.93	5.77
3	0.45	3.41	0.85	A	746.61	1119.91	56.50	3.03	0.63	56.50	3.03
4	0.18	2.35	0.23	A	293.02	439.54	16.04	2.19	0.18	16.04	2.19

Existing Layout - 2025 Baseline, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline, PM Peak	2025 Baseline	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				5.88	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.000	2.461	245.250	101.709
	2	7.382	0.000	68.079	21.326
	3	166.507	44.293	0.000	599.590
	4	101.709	9.843	567.601	0.000

Turning Proportions (PCU) - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.000	2.938	292.852	121.450
	2	8.815	0.000	81.293	25.465
	3	198.826	52.890	0.000	715.969
	4	121.450	11.753	677.771	0.000

Turning Proportions (PCU) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.000	3.599	358.669	148.746
	2	10.796	0.000	99.564	31.189
	3	243.511	64.776	0.000	876.880
	4	148.746	14.395	830.097	0.000

Turning Proportions (PCU) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.000	3.599	358.669	148.746
	2	10.796	0.000	99.564	31.189
	3	243.511	64.776	0.000	876.880
	4	148.746	14.395	830.097	0.000

Turning Proportions (PCU) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.000	2.938	292.852	121.450
	2	8.815	0.000	81.293	25.465
	3	198.826	52.890	0.000	715.969
	4	121.450	11.753	677.771	0.000

Turning Proportions (PCU) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.000	2.461	245.250	101.709
	2	7.382	0.000	68.079	21.326
	3	166.507	44.293	0.000	599.590
	4	101.709	9.843	567.601	0.000

Turning Proportions (PCU) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.00	0.01	0.70	0.29
	2	0.08	0.00	0.70	0.22
	3	0.21	0.05	0.00	0.74
	4	0.15	0.01	0.84	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.53	7.85	1.10	A	425.89	638.84	64.71	6.08	0.72	64.71	6.08
2	0.50	25.74	0.98	D	117.97	176.95	47.24	16.02	0.52	47.24	16.02
3	0.62	4.99	1.63	A	987.75	1481.62	99.45	4.03	1.10	99.46	4.03
4	0.46	3.11	0.86	A	827.79	1241.68	56.07	2.71	0.62	56.07	2.71

Existing Layout - 2025 Baseline + Dev, AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline + Dev, AM Peak	2025 Baseline + Dev	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				4.02	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.823	2.343	196.303	62.572
	2	36.278	0.000	92.527	0.564
	3	213.946	0.000	7.410	253.349
	4	46.106	0.000	196.954	0.000

Turning Proportions (PCU) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.00	0.01	0.75	0.24
	2	0.28	0.00	0.72	0.00
	3	0.45	0.00	0.02	0.53
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.983	10.173	234.017	74.717
	2	43.319	0.000	110.486	0.673
	3	254.697	22.929	8.848	300.971
	4	55.055	0.000	232.270	0.000

Turning Proportions (PCU) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.00	0.03	0.73	0.23
	2	0.28	0.00	0.72	0.00
	3	0.43	0.04	0.02	0.51
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.204	21.000	286.162	91.510
	2	53.055	0.000	135.317	0.824
	3	311.039	63.142	10.837	366.815
	4	67.428	3.061	281.101	0.000

Turning Proportions (PCU) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.00	0.05	0.72	0.23
	2	0.28	0.00	0.72	0.00
	3	0.41	0.08	0.01	0.49
	4	0.19	0.01	0.80	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.204	21.000	286.162	91.510
	2	53.055	0.000	135.317	0.824
	3	311.039	63.142	10.837	366.815
	4	67.428	3.061	281.101	0.000

Turning Proportions (PCU) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.00	0.05	0.72	0.23
	2	0.28	0.00	0.72	0.00
	3	0.41	0.08	0.01	0.49
	4	0.19	0.01	0.80	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.983	10.173	234.017	74.717
	2	43.319	0.000	110.486	0.673
	3	254.697	22.929	8.848	300.971
	4	55.055	0.000	232.270	0.000

Turning Proportions (PCU) - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.00	0.03	0.73	0.23
	2	0.28	0.00	0.72	0.00
	3	0.43	0.04	0.02	0.51
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (09:00-09:15)

		To			
From		1	2	3	4
	1	0.823	2.343	196.303	62.572
	2	36.278	0.000	92.527	0.564
	3	213.946	0.000	7.410	253.349
	4	46.106	0.000	196.954	0.000

Turning Proportions (PCU) - Junction 1 - (09:00-09:15)

		To			
From		1	2	3	4
	1	0.00	0.01	0.75	0.24
	2	0.28	0.00	0.72	0.00
	3	0.45	0.00	0.02	0.53
	4	0.19	0.00	0.81	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.000	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	0.0	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.084	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	8.4	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.036	1.326	1.042
	4	1.052	1.000	1.063	1.000

Heavy Vehicle Percentages - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	3.6	32.6	4.2
	4	5.2	0.0	6.3	0.0

Average PCU Per Vehicle - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.036	1.326	1.042
	4	1.052	1.000	1.063	1.000

Heavy Vehicle Percentages - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	3.6	32.6	4.2
	4	5.2	0.0	6.3	0.0

Average PCU Per Vehicle - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.084	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (08:45-09:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	8.4	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.000	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	0.0	32.6	4.2
	4	5.2	0.0	6.2	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.34	4.24	0.51	A	363.27	544.90	34.22	3.77	0.38	34.23	3.77
2	0.32	8.94	0.47	A	157.68	236.52	29.90	7.58	0.33	29.90	7.58
3	0.46	3.55	0.88	A	746.61	1119.91	58.40	3.13	0.65	58.40	3.13
4	0.18	2.31	0.23	A	293.02	439.54	15.77	2.15	0.18	15.77	2.15

Existing Layout - 2025 Baseline + Dev, PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	R
2025 Baseline + Dev, PM Peak	2025 Baseline + Dev	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				6.75	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.000	35.586	248.261	101.709
	2	14.382	0.000	25.079	0.000
	3	168.013	91.722	0.000	619.164
	4	101.709	0.000	579.601	0.000

Turning Proportions (PCU) - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.36	0.00	0.64	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.000	42.493	296.448	121.450
	2	15.815	0.000	38.293	0.000
	3	200.624	109.525	0.000	739.343
	4	121.450	0.000	689.771	0.000

Turning Proportions (PCU) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.29	0.00	0.71	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.000	52.044	363.073	148.746
	2	17.796	0.000	56.564	5.189
	3	245.713	134.141	0.000	905.506
	4	148.746	2.395	842.097	0.000

Turning Proportions (PCU) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.22	0.00	0.71	0.07
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.000	52.044	363.073	148.746
	2	17.796	0.000	56.564	5.189
	3	245.713	134.141	0.000	905.506
	4	148.746	2.395	842.097	0.000

Turning Proportions (PCU) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.22	0.00	0.71	0.07
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.000	42.493	296.448	121.450
	2	15.815	0.000	38.293	0.000
	3	200.624	109.525	0.000	739.343
	4	121.450	0.000	689.771	0.000

Turning Proportions (PCU) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.29	0.00	0.71	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.000	35.586	248.261	101.709
	2	14.382	0.000	25.079	0.000
	3	168.013	91.722	0.000	619.164
	4	101.709	0.000	579.601	0.000

Turning Proportions (PCU) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.36	0.00	0.64	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.61	9.86	1.52	A	469.94	704.91	84.08	7.16	0.93	84.08	7.16
2	0.52	27.24	1.04	D	117.97	176.95	49.16	16.67	0.55	49.16	16.67
3	0.67	5.77	2.04	A	1071.25	1606.88	120.09	4.48	1.33	120.10	4.48
4	0.48	3.33	0.92	A	827.79	1241.68	59.27	2.86	0.66	59.27	2.86

Existing Layout - 2025 Baseline + Dev (Sensitivity), AM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically
2025 Baseline + Dev (Sensitivity), AM Peak	2025 Baseline + Dev (Sensitivity)	AM Peak		Varies by Arm	07:45	09:15	90	15			✓	✓

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				4.02	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.823	2.343	196.303	62.572
	2	36.278	0.000	92.527	0.564
	3	213.946	0.000	7.410	253.349
	4	46.106	0.000	196.954	0.000

Turning Proportions (PCU) - Junction 1 - (07:45-08:00)

		To			
From		1	2	3	4
	1	0.00	0.01	0.75	0.24
	2	0.28	0.00	0.72	0.00
	3	0.45	0.00	0.02	0.53
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.983	10.173	234.017	74.717
	2	43.319	0.000	110.486	0.673
	3	254.697	22.929	8.848	300.971
	4	55.055	0.000	232.270	0.000

Turning Proportions (PCU) - Junction 1 - (08:00-08:15)

		To			
From		1	2	3	4
	1	0.00	0.03	0.73	0.23
	2	0.28	0.00	0.72	0.00
	3	0.43	0.04	0.02	0.51
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.204	21.000	286.162	91.510
	2	53.055	0.000	135.317	0.824
	3	311.039	63.142	10.837	366.815
	4	67.428	3.061	281.101	0.000

Turning Proportions (PCU) - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.00	0.05	0.72	0.23
	2	0.28	0.00	0.72	0.00
	3	0.41	0.08	0.01	0.49
	4	0.19	0.01	0.80	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.204	21.000	286.162	91.510
	2	53.055	0.000	135.317	0.824
	3	311.039	63.142	10.837	366.815
	4	67.428	3.061	281.101	0.000

Turning Proportions (PCU) - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.00	0.05	0.72	0.23
	2	0.28	0.00	0.72	0.00
	3	0.41	0.08	0.01	0.49
	4	0.19	0.01	0.80	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.983	10.173	234.017	74.717
	2	43.319	0.000	110.486	0.673
	3	254.697	22.929	8.848	300.971
	4	55.055	0.000	232.270	0.000

Turning Proportions (PCU) - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.00	0.03	0.73	0.23
	2	0.28	0.00	0.72	0.00
	3	0.43	0.04	0.02	0.51
	4	0.19	0.00	0.81	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.823	2.343	196.303	62.572
	2	36.278	0.000	92.527	0.564
	3	213.946	0.000	7.410	253.349
	4	46.106	0.000	196.954	0.000

Turning Proportions (PCU) - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.00	0.01	0.75	0.24
	2	0.28	0.00	0.72	0.00
	3	0.45	0.00	0.02	0.53
	4	0.19	0.00	0.81	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (07:45-08:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.000	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (07:45-08:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	0.0	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (08:00-08:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.084	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (08:00-08:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	8.4	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.036	1.326	1.042
	4	1.052	1.000	1.063	1.000

Heavy Vehicle Percentages - Junction 1 - (08:15-08:30)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	3.6	32.6	4.2
	4	5.2	0.0	6.3	0.0

Average PCU Per Vehicle - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.036	1.326	1.042
	4	1.052	1.000	1.063	1.000

Heavy Vehicle Percentages - Junction 1 - (08:30-08:45)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	3.6	32.6	4.2
	4	5.2	0.0	6.3	0.0

Average PCU Per Vehicle - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.084	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (08:45-09:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	8.4	32.6	4.2
	4	5.2	0.0	6.2	0.0

Average PCU Per Vehicle - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.008	1.000
	2	1.000	1.000	1.000	1.000
	3	1.007	1.000	1.326	1.042
	4	1.052	1.000	1.062	1.000

Heavy Vehicle Percentages - Junction 1 - (09:00-09:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.8	0.0
	2	0.0	0.0	0.0	0.0
	3	0.7	0.0	32.6	4.2
	4	5.2	0.0	6.2	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.34	4.24	0.51	A	363.27	544.90	34.22	3.77	0.38	34.23	3.77
2	0.32	8.94	0.47	A	157.68	236.52	29.90	7.58	0.33	29.90	7.58
3	0.46	3.55	0.88	A	746.61	1119.91	58.40	3.13	0.65	58.40	3.13
4	0.18	2.31	0.23	A	293.02	439.54	15.77	2.15	0.18	15.77	2.15

Existing Layout - 2025 Baseline + Dev (Sensitivity), PM Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically
2025 Baseline + Dev (Sensitivity), PM Peak	2025 Baseline + Dev (Sensitivity)	PM Peak		Varies by Arm	16:45	18:15	90	15			✓	✓

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3,4				6.75	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Plas Coch Rd (N)	
2	2	Entrance B	
3	3	Plas Coch Rd (S)	
4	4	Retail Park	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

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	3.80	5.60	25.70	13.60	36.30	39.00	
2	2.70	3.60	2.70	13.10	36.30	25.50	
3	3.40	8.10	26.80	26.80	36.30	17.00	
4	7.30	7.30	0.00	95.00	36.30	13.50	

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		(calculated)	(calculated)	0.595	1510.322
2		(calculated)	(calculated)	0.493	940.417
3		(calculated)	(calculated)	0.739	2054.108
4		(calculated)	(calculated)	0.825	2423.933

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	DIRECT		N/A	100.000
2	DIRECT		N/A	100.000
3	DIRECT		N/A	100.000
4	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 - (16:45-17:00)

	To				
From		1	2	3	4
	1	0.000	35.586	248.261	101.709
	2	14.382	0.000	25.079	0.000
	3	168.013	91.722	0.000	619.164
	4	101.709	0.000	579.601	0.000

Turning Proportions (PCU) - Junction 1 - (16:45-17:00)

	To				
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.36	0.00	0.64	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.000	42.493	296.448	121.450
	2	15.815	0.000	38.293	0.000
	3	200.624	109.525	0.000	739.343
	4	121.450	0.000	689.771	0.000

Turning Proportions (PCU) - Junction 1 - (17:00-17:15)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.29	0.00	0.71	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.000	52.044	363.073	148.746
	2	17.796	0.000	56.564	5.189
	3	245.713	134.141	0.000	905.506
	4	148.746	2.395	842.097	0.000

Turning Proportions (PCU) - Junction 1 - (17:15-17:30)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.22	0.00	0.71	0.07
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.000	52.044	363.073	148.746
	2	17.796	0.000	56.564	5.189
	3	245.713	134.141	0.000	905.506
	4	148.746	2.395	842.097	0.000

Turning Proportions (PCU) - Junction 1 - (17:30-17:45)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.22	0.00	0.71	0.07
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.000	42.493	296.448	121.450
	2	15.815	0.000	38.293	0.000
	3	200.624	109.525	0.000	739.343
	4	121.450	0.000	689.771	0.000

Turning Proportions (PCU) - Junction 1 - (17:45-18:00)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.29	0.00	0.71	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Turning Counts / Proportions (PCU/hr) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.000	35.586	248.261	101.709
	2	14.382	0.000	25.079	0.000
	3	168.013	91.722	0.000	619.164
	4	101.709	0.000	579.601	0.000

Turning Proportions (PCU) - Junction 1 - (18:00-18:15)

		To			
From		1	2	3	4
	1	0.00	0.09	0.64	0.26
	2	0.36	0.00	0.64	0.00
	3	0.19	0.10	0.00	0.70
	4	0.15	0.00	0.85	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (16:45-17:00)

		To			
From		1	2	3	4
	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

		To			
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Average PCU Per Vehicle - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.013
	4	1.000	1.000	1.011	1.000

Heavy Vehicle Percentages - Junction 1 - (18:00-18:15)

	To				
		1	2	3	4
From	1	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	1.3
	4	0.0	0.0	1.1	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1	0.61	9.86	1.52	A	469.94	704.91	84.08	7.16	0.93	84.08	7.16
2	0.52	27.24	1.04	D	117.97	176.95	49.16	16.67	0.55	49.16	16.67
3	0.67	5.77	2.04	A	1071.25	1606.88	120.09	4.48	1.33	120.10	4.48
4	0.48	3.33	0.92	A	827.79	1241.68	59.27	2.86	0.66	59.27	2.86

Appendix F

PICADY Reports

Junctions 9		
PICADY 9 - Priority Intersection Module		
Version: 9.0.2.5947 © Copyright TRL Limited, 2017		
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Filename: MoldRdAccess_120618.j9

Path: Z:\2600-2699\2627 Wrexham Glyndwr University\Data\Junction Assessment

Report generation date: 12/06/2018 15:15:36

- »Proposed Layout - 2018 Baseline, AM Peak
- »Proposed Layout - 2018 Baseline, PM Peak
- »Proposed Layout - 2020 Baseline, AM Peak
- »Proposed Layout - 2020 Baseline, PM Peak
- »Proposed Layout - 2020 Baseline + Dev, AM Peak
- »Proposed Layout - 2020 Baseline + Dev, PM Peak
- »Proposed Layout - 2025 Baseline, AM Peak
- »Proposed Layout - 2025 Baseline, PM Peak
- »Proposed Layout - 2025 Baseline + Dev, AM Peak
- »Proposed Layout - 2025 Baseline + Dev, PM Peak
- »Proposed Layout - 2025 Baseline + Dev (Sensitivity), AM Peak
- »Proposed Layout - 2025 Baseline + Dev (Sensitivity), PM Peak

Summary of junction performance

	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Proposed Layout - 2018 Baseline						
Stream B-AC	0.1	8.44	0.07	0.3	11.30	0.22
Stream C-AB	0.1	5.24	0.04	0.1	3.57	0.06
Proposed Layout - 2020 Baseline						
Stream B-AC	0.1	8.57	0.07	0.3	11.64	0.23
Stream C-AB	0.1	5.21	0.05	0.1	3.52	0.06
Proposed Layout - 2020 Baseline + Dev						
Stream B-AC	0.3	10.84	0.20	1.5	23.38	0.61
Stream C-AB	0.0	5.19	0.00	0.0	3.42	0.00
Proposed Layout - 2025 Baseline						
Stream B-AC	0.1	8.82	0.08	0.3	12.30	0.25
Stream C-AB	0.1	5.16	0.05	0.1	3.44	0.07
Proposed Layout - 2025 Baseline + Dev						
Stream B-AC	0.3	11.24	0.21	1.7	26.18	0.64
Stream C-AB	0.0	5.13	0.00	0.0	3.34	0.01
Proposed Layout - 2025 Baseline + Dev (Sensitivity)						
Stream B-AC	0.4	12.90	0.31	6.0	68.86	0.89
Stream C-AB	0.0	5.19	0.00	0.0	3.34	0.01

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.

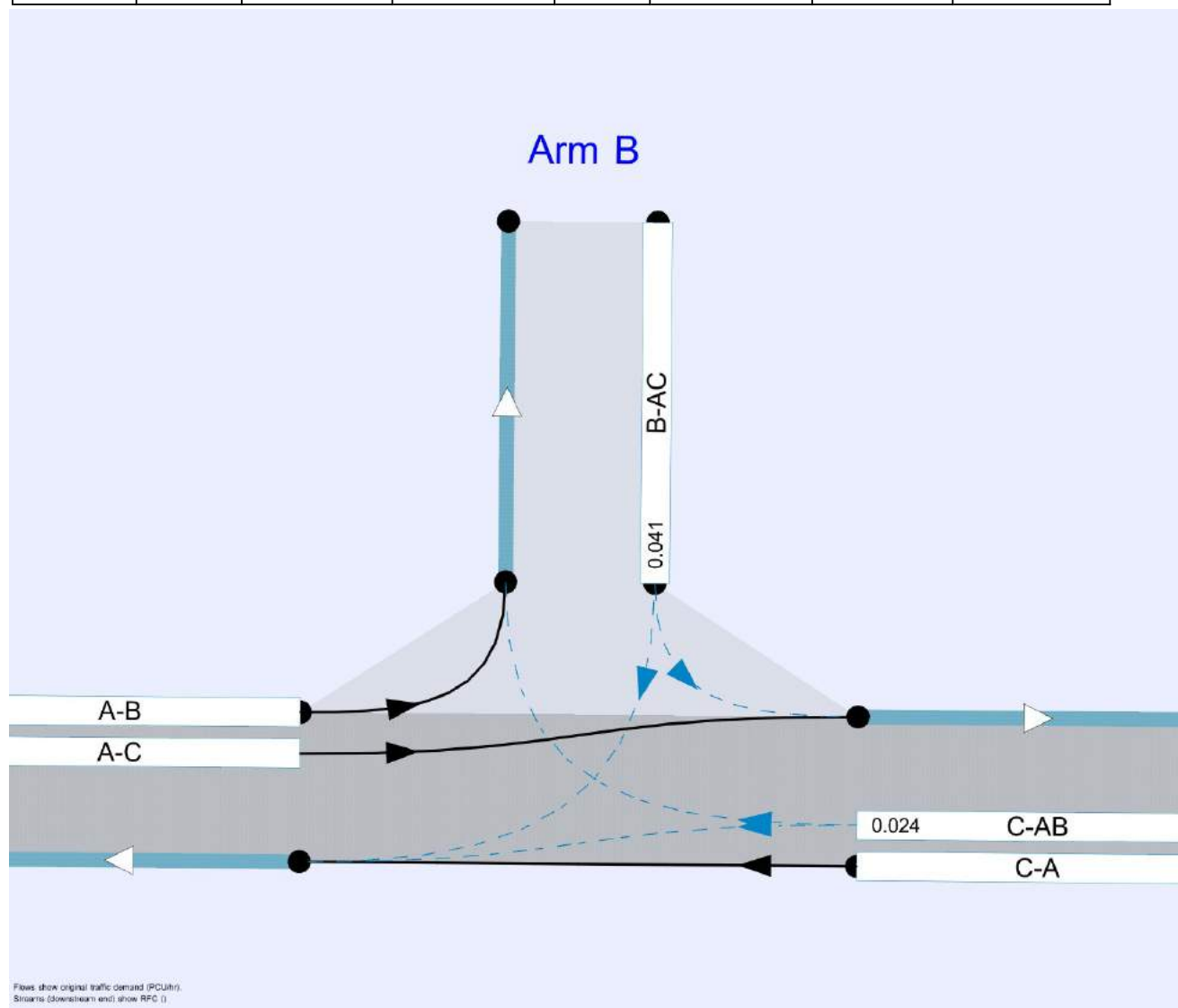
File summary

File Description

Title	Wrexham Glyndwr University
Location	Plas Coch Campus
Site number	
Date	12/06/2018
Version	1
Status	
Identifier	
Client	Wrexham Glyndwr University
Jobnumber	2627
Enumerator	Mark Lever
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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)	Locked	Run automatically	Relationship type	Relationship
D1	2018 Baseline	AM Peak	ONE HOUR	07:45	09:15	15		✓		
D2	2018 Baseline	PM Peak	ONE HOUR	16:45	18:15	15		✓		
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12
D11	Dev	AM Peak	ONE HOUR	07:45	09:15	15				
D12	Dev	PM Peak	ONE HOUR	16:45	18:15	15				
D13	2025 Baseline + Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D15
D14	2025 Baseline + Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D16
D15	Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15				
D16	Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15				

Analysis Set Details

ID	Name	Description	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Proposed Layout	ITP DWG-2627-101	✓	100.000	100.000

Proposed Layout - 2018 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Mold Rd (W)		Major
B	Entrance A		Minor
C	Mold Rd (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	16.66	✓	4.55		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	One lane	3.30	30	74

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	594	0.053	0.133	0.084	0.190
1	B-C	691	0.057	0.143	-	-
1	C-B	574	0.119	0.119	-	-

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 Baseline	AM Peak	ONE HOUR	07:45	09:15	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		ONE HOUR	✓	950	100.000
B		ONE HOUR	✓	28	100.000
C		ONE HOUR	✓	424	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	61	889
	B	18	0	10
	C	411	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.07	8.44	0.1	A	26	39
C-AB	0.04	5.24	0.1	A	25	37
C-A					364	546
A-B					56	84
A-C					816	1224

Proposed Layout - 2018 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.60	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 Baseline	PM Peak	ONE HOUR	16:45	18:15	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		ONE HOUR	✓	742	100.000
B		ONE HOUR	✓	82	100.000
C		ONE HOUR	✓	1027	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	36	706
	B	72	0	10
	C	1018	9	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.22	11.30	0.3	B	75	113
C-AB	0.06	3.57	0.1	A	45	68
C-A					897	1346
A-B					33	50
A-C					648	972

Proposed Layout - 2020 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.27	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)	Locked	Run automatically	Relationship type	Relationship
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335

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		ONE HOUR	✓	982	100.000
B		ONE HOUR	✓	29	100.000
C		ONE HOUR	✓	438	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	63	919
	B	19	0	10
	C	425	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	3
	B	0	0	0
	C	3	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	0.07	8.57	0.1	A	27	40
C-AB	0.05	5.21	0.1	A	26	39
C-A					376	564
A-B					58	87
A-C					843	1265

Proposed Layout - 2020 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.62	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)	Locked	Run automatically	Relationship type	Relationship
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316

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		ONE HOUR	✓	765	100.000
B		ONE HOUR	✓	85	100.000
C		ONE HOUR	✓	1059	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	37	728
	B	74	0	10
	C	1050	9	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.23	11.64	0.3	B	78	116
C-AB	0.06	3.52	0.1	A	50	75
C-A					922	1384
A-B					34	51
A-C					668	1002

Proposed Layout - 2020 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	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)	Locked	Run automatically	Relationship type	Relationship
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11

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		ONE HOUR	✓	1220	100.000
B		ONE HOUR	✓	77	100.000
C		ONE HOUR	✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	286	934
	B	65	0	12
	C	429	0.44	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.20	10.84	0.3	B	71	106
C-AB	0.00	5.19	0.0	A	0.89	1
C-A					393	589
A-B					262	394
A-C					857	1285

Proposed Layout - 2020 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.37	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)	Locked	Run automatically	Relationship type	Relationship
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12

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		ONE HOUR	✓	848	100.000
B		ONE HOUR	✓	216	100.000
C		ONE HOUR	✓	1065	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	114	734
	B	200	0	15
	C	1065	0.28	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.61	23.38	1.5	C	198	297
C-AB	0.00	3.42	0.0	A	2	2
C-A					976	1464
A-B					105	157
A-C					674	1011

Proposed Layout - 2025 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.28	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)	Locked	Run automatically	Relationship type	Relationship
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936

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		ONE HOUR	✓	1039	100.000
B		ONE HOUR	✓	31	100.000
C		ONE HOUR	✓	464	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	From A	0	67	972
	From B	20	0	11
	From C	449	14	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	From A	0	0	3
	From B	0	0	0
	From C	3	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	0.08	8.82	0.1	A	28	42
C-AB	0.05	5.16	0.1	A	29	44
C-A					396	594
A-B					61	92
A-C					892	1338

Proposed Layout - 2025 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.66	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)	Locked	Run automatically	Relationship type	Relationship
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895

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		ONE HOUR	✓	808	100.000
B		ONE HOUR	✓	89	100.000
C		ONE HOUR	✓	1119	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	39	769
	B	78	0	11
	C	1109	10	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.25	12.30	0.3	B	82	123
C-AB	0.07	3.44	0.1	A	60	89
C-A					967	1451
A-B					36	54
A-C					706	1059

Proposed Layout - 2025 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	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)	Locked	Run automatically	Relationship type	Relationship
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11

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		ONE HOUR	✓	1277	100.000
B		ONE HOUR	✓	79	100.000
C		ONE HOUR	✓	455	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	290	987
	B	66	0	13
	C	453	1	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.21	11.24	0.3	B	72	108
C-AB	0.00	5.13	0.0	A	3	4
C-A					415	622
A-B					266	399
A-C					906	1359

Proposed Layout - 2025 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.59	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)	Locked	Run automatically	Relationship type	Relationship
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12

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		ONE HOUR	✓	891	100.000
B		ONE HOUR	✓	220	100.000
C		ONE HOUR	✓	1125	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From	A	B	C	
	0	116	775	
	204	0	16	
	1124	0.81	0	

Vehicle Mix

Heavy Vehicle Percentages

	To			
From	A	B	C	
	0	0	3	
	0	0	0	
	3	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	0.64	26.18	1.7	D	202	303
C-AB	0.01	3.34	0.0	A	5	8
C-A					1027	1541
A-B					107	160
A-C					711	1067

Proposed Layout - 2025 Baseline + Dev (Sensitivity), AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.75	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)	Locked	Run automatically	Relationship type	Relationship
D13	2025 Baseline + Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D15

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		ONE HOUR	✓	1381	100.000
B		ONE HOUR	✓	113	100.000
C		ONE HOUR	✓	455	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A	B	C
From	A	0	394
	B	92	0
	C	453	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.31	12.90	0.4	B	103	155
C-AB	0.00	5.19	0.0	A	3	4
C-A					415	622
A-B					361	542
A-C					906	1359

Proposed Layout - 2025 Baseline + Dev (Sensitivity), PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.00	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)	Locked	Run automatically	Relationship type	Relationship
D14	2025 Baseline + Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D16

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		ONE HOUR	✓	934	100.000
B		ONE HOUR	✓	309	100.000
C		ONE HOUR	✓	1125	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	159	775
	B	271	0	38
	C	1124	0.81	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	0	0	3
	B	0	0	0
	C	3	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	0.89	68.86	6.0	F	284	426
C-AB	0.01	3.34	0.0	A	5	8
C-A					1027	1541
A-B					146	219
A-C					711	1067

Junctions 9						
PICADY 9 - Priority Intersection Module						
Version: 9.0.2.5947						
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Filename: CrispinLnAccess_130618.j9

Path: Z:\2600-2699\2627 Wrexham Glyndwr University\Data\Junction Assessment

Report generation date: 13/06/2018 11:15:06

- »Existing Layout - 2018 Baseline, AM Peak
- »Existing Layout - 2018 Baseline, PM Peak
- »Existing Layout - 2020 Baseline, AM Peak
- »Existing Layout - 2020 Baseline, PM Peak
- »Existing Layout - 2020 Baseline + Dev, AM Peak
- »Existing Layout - 2020 Baseline + Dev, PM Peak
- »Existing Layout - 2025 Baseline, AM Peak
- »Existing Layout - 2025 Baseline, PM Peak
- »Existing Layout - 2025 Baseline + Dev, AM Peak
- »Existing Layout - 2025 Baseline + Dev, PM Peak
- »Existing Layout - 2025 Baseline + Dev (Sensitivity), AM Peak
- »Existing Layout - 2025 Baseline + Dev (Sensitivity), PM Peak

Summary of junction performance

	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing Layout - 2018 Baseline						
Stream B-AC	0.1	7.95	0.05	0.1	8.56	0.09
Stream C-AB	0.1	6.11	0.06	0.0	6.11	0.04
Existing Layout - 2020 Baseline						
Stream B-AC	0.1	7.97	0.06	0.1	8.60	0.10
Stream C-AB	0.1	6.11	0.06	0.1	6.11	0.04
Existing Layout - 2020 Baseline + Dev						
Stream B-AC	0.1	8.01	0.06	0.1	8.51	0.12
Stream C-AB	0.2	6.51	0.15	0.1	6.10	0.05
Existing Layout - 2025 Baseline						
Stream B-AC	0.1	8.02	0.06	0.1	8.68	0.10
Stream C-AB	0.1	6.11	0.06	0.1	6.11	0.04
Existing Layout - 2025 Baseline + Dev						
Stream B-AC	0.1	8.06	0.07	0.2	8.60	0.13
Stream C-AB	0.2	6.53	0.16	0.1	6.11	0.05
Existing Layout - 2025 Baseline + Dev (Sensitivity)						
Stream B-AC	0.1	8.07	0.07	0.2	8.63	0.14
Stream C-AB	0.3	6.82	0.19	0.1	6.13	0.06

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	Wrexham Glyndwr University
Location	Plas Coch Campus
Site number	
Date	13/06/2018
Version	1
Status	
Identifier	
Client	Wrexham Glyndwr University
Jobnumber	2627
Enumerator	Mark Lever
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)	Locked	Run automatically	Relationship type	Relationship
D1	2018 Baseline	AM Peak	ONE HOUR	07:45	09:15	15		✓		
D2	2018 Baseline	PM Peak	ONE HOUR	16:45	18:15	15		✓		
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12
D11	Dev	AM Peak	ONE HOUR	07:45	09:15	15				
D12	Dev	PM Peak	ONE HOUR	16:45	18:15	15				
D13	2025 Baseline + Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D15
D14	2025 Baseline + Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D16
D15	Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15				
D16	Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15				

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Existing Layout	✓	100.000	100.000

Existing Layout - 2018 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		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	6.50			130.0	✓	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	One lane	2.20	15	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	452	0.081	0.204	0.128	0.291
1	B-C	584	0.088	0.222	-	-
1	C-B	649	0.246	0.246	-	-

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 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	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		ONE HOUR	✓	72	100.000
B		ONE HOUR	✓	26	100.000
C		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	28	44
	B	6	0	20
	C	79	30	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.95	0.1	A	24	36
C-AB	0.06	6.11	0.1	A	31	46
C-A					69	104
A-B					26	39
A-C					40	61

Existing Layout - 2018 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.43	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)	Run automatically
D2	2018 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	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		ONE HOUR	✓	82	100.000
B		ONE HOUR	✓	44	100.000
C		ONE HOUR	✓	84	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	21	61
	B	14	0	30
	C	64	20	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	8.56	0.1	A	40	61
C-AB	0.04	6.11	0.0	A	20	30
C-A					57	85
A-B					19	29
A-C					56	84

Existing Layout - 2020 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.00	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)	Locked	Run automatically	Relationship type	Relationship
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335

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		ONE HOUR	✓	74	100.000
B		ONE HOUR	✓	27	100.000
C		ONE HOUR	✓	113	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	29	45
	B	6	0	21
	C	82	31	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	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	0.06	7.97	0.1	A	25	37
C-AB	0.06	6.11	0.1	A	32	48
C-A					71	107
A-B					27	40
A-C					42	63

Existing Layout - 2020 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.44	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)	Locked	Run automatically	Relationship type	Relationship
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316

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		ONE HOUR	✓	85	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	87	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	22	63
	B	14	0	31
	C	66	21	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	10	10
	B	10	0	10
	C	10	10	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	8.60	0.1	A	42	62
C-AB	0.04	6.11	0.1	A	21	31
C-A					59	88
A-B					20	30
A-C					58	87

Existing Layout - 2020 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.93	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)	Locked	Run automatically	Relationship type	Relationship
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11

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		ONE HOUR	✓	95	100.000
B		ONE HOUR	✓	30	100.000
C		ONE HOUR	✓	165	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	50	45
	B	6	0	24
	C	82	83	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	6	10
	B	10	0	9
	C	10	4	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	0.06	8.01	0.1	A	27	41
C-AB	0.15	6.51	0.2	A	86	129
C-A					65	98
A-B					46	69
A-C					42	63

Existing Layout - 2020 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.65	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)	Locked	Run automatically	Relationship type	Relationship
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12

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		ONE HOUR	✓	97	100.000
B		ONE HOUR	✓	56	100.000
C		ONE HOUR	✓	91	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	34	63
	B	14	0	42
	C	66	25	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	6	10
	B	10	0	7
	C	10	8	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	0.12	8.51	0.1	A	52	78
C-AB	0.05	6.10	0.1	A	25	37
C-A					58	87
A-B					31	46
A-C					58	87

Existing Layout - 2025 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.01	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)	Locked	Run automatically	Relationship type	Relationship
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936

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		ONE HOUR	✓	79	100.000
B		ONE HOUR	✓	28	100.000
C		ONE HOUR	✓	119	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	31	48
	B	7	0	22
	C	86	33	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	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	0.06	8.02	0.1	A	26	39
C-AB	0.06	6.11	0.1	A	34	51
C-A					75	113
A-B					28	42
A-C					44	66

Existing Layout - 2025 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.46	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)	Locked	Run automatically	Relationship type	Relationship
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895

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		ONE HOUR	✓	89	100.000
B		ONE HOUR	✓	48	100.000
C		ONE HOUR	✓	92	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	23	66
	B	15	0	33
	C	70	22	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	10	10
	B	10	0	10
	C	10	10	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	8.68	0.1	A	44	66
C-AB	0.04	6.11	0.1	A	22	33
C-A					62	93
A-B					21	31
A-C					61	91

Existing Layout - 2025 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.92	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)	Locked	Run automatically	Relationship type	Relationship
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11

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		ONE HOUR	✓	100	100.000
B		ONE HOUR	✓	31	100.000
C		ONE HOUR	✓	171	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	52	48
	B	7	0	25
	C	86	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	6	10
	B	10	0	9
	C	10	4	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	0.07	8.06	0.1	A	29	43
C-AB	0.16	6.53	0.2	A	88	133
C-A					69	103
A-B					47	71
A-C					44	66

Existing Layout - 2025 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.66	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)	Locked	Run automatically	Relationship type	Relationship
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12

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		ONE HOUR	✓	101	100.000
B		ONE HOUR	✓	59	100.000
C		ONE HOUR	✓	96	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	35	66
	B	15	0	44
	C	70	26	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	6	10
	B	10	0	7
	C	10	8	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	0.13	8.60	0.2	A	54	81
C-AB	0.05	6.11	0.1	A	26	39
C-A					61	92
A-B					32	48
A-C					61	91

Existing Layout - 2025 Baseline + Dev (Sensitivity), AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.97	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)	Locked	Run automatically	Relationship type	Relationship
D13	2025 Baseline + Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D15

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		ONE HOUR	✓	133	100.000
B		ONE HOUR	✓	34	100.000
C		ONE HOUR	✓	185	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	85	48
	B	7	0	28
	C	86	99	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	3	10
	B	10	0	8
	C	10	3	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	0.07	8.07	0.1	A	32	47
C-AB	0.19	6.82	0.3	A	103	155
C-A					67	100
A-B					78	116
A-C					44	66

Existing Layout - 2025 Baseline + Dev (Sensitivity), PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.82	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)	Locked	Run automatically	Relationship type	Relationship
D14	2025 Baseline + Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D16

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		ONE HOUR	✓	115	100.000
B		ONE HOUR	✓	68	100.000
C		ONE HOUR	✓	102	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A	B	C
From	A	0	49
	B	15	0
	C	70	32

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	4	10
	B	10	0	6
	C	10	7	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	0.14	8.63	0.2	A	62	94
C-AB	0.06	6.13	0.1	A	32	49
C-A					61	91
A-B					45	67
A-C					61	91

Junctions 9		
PICADY 9 - Priority Intersection Module		
Version: 9.0.2.5947 © Copyright TRL Limited, 2017		
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Filename: MoldRdCrispinLane_130618.j9

Path: Z:\2600-2699\2627 Wrexham Glyndwr University\Data\Junction Assessment

Report generation date: 13/06/2018 09:48:45

- »Proposed Layout - 2018 Baseline, AM Peak
- »Proposed Layout - 2018 Baseline, PM Peak
- »Proposed Layout - 2020 Baseline, AM Peak
- »Proposed Layout - 2020 Baseline, PM Peak
- »Proposed Layout - 2020 Baseline + Dev, AM Peak
- »Proposed Layout - 2020 Baseline + Dev, PM Peak
- »Proposed Layout - 2025 Baseline, AM Peak
- »Proposed Layout - 2025 Baseline, PM Peak
- »Proposed Layout - 2025 Baseline + Dev, AM Peak
- »Proposed Layout - 2025 Baseline + Dev, PM Peak
- »Proposed Layout - 2025 Baseline + Dev (Sensitivity), AM Peak
- »Proposed Layout - 2025 Baseline + Dev (Sensitivity), PM Peak

Summary of junction performance

	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Proposed Layout - 2018 Baseline						
Stream B-AC	0.4	14.44	0.26	0.4	16.90	0.29
Stream C-AB	0.4	6.22	0.16	1.9	4.66	0.38
Proposed Layout - 2020 Baseline						
Stream B-AC	0.4	15.10	0.28	0.4	18.22	0.31
Stream C-AB	0.5	6.26	0.17	2.2	4.90	0.42
Proposed Layout - 2020 Baseline + Dev						
Stream B-AC	0.4	13.59	0.26	0.3	10.93	0.21
Stream C-AB	0.7	6.99	0.25	3.1	5.85	0.51
Proposed Layout - 2025 Baseline						
Stream B-AC	0.5	16.48	0.31	0.5	21.52	0.36
Stream C-AB	0.6	6.35	0.19	3.2	5.62	0.51
Proposed Layout - 2025 Baseline + Dev						
Stream B-AC	0.4	14.70	0.28	0.3	12.01	0.24
Stream C-AB	0.8	7.16	0.27	4.7	7.31	0.62
Proposed Layout - 2025 Baseline + Dev (Sensitivity)						
Stream B-AC	0.4	14.86	0.29	0.3	12.35	0.24
Stream C-AB	1.4	8.76	0.40	8.0	11.72	0.75

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	Wrexham Glyndwr University
Location	Plas Coch Campus
Site number	
Date	13/06/2018
Version	1
Status	
Identifier	
Client	Wrexham Glyndwr University
Jobnumber	2627
Enumerator	Mark Lever
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)	Locked	Run automatically	Relationship type	Relationship
D1	2018 Baseline	AM Peak	ONE HOUR	07:45	09:15	15		✓		
D2	2018 Baseline	PM Peak	ONE HOUR	16:45	18:15	15		✓		
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12
D11	Dev	AM Peak	ONE HOUR	07:45	09:15	15				
D12	Dev	PM Peak	ONE HOUR	16:45	18:15	15				
D13	2025 Baseline + Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D15
D14	2025 Baseline + Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D16
D15	Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15				
D16	Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15				

Analysis Set Details

ID	Name	Description	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Proposed Layout	ITP DWG-2627-102	✓	100.000	100.000

Proposed Layout - 2018 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Mold Rd (W)		Major
B	Crispin Lane		Minor
C	Mold Rd (E)		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	6.70			130.0	✓	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	One lane	2.60	18	19

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	473	0.084	0.211	0.133	0.302
1	B-C	610	0.091	0.229	-	-
1	C-B	649	0.244	0.244	-	-

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 Baseline	AM Peak	ONE HOUR	07:45	09:15	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		ONE HOUR	✓	889	100.000
B		ONE HOUR	✓	85	100.000
C		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	27	862
	B	8	0	77
	C	389	45	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	7
	B	0	0	7
	C	10	4	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	0.26	14.44	0.4	B	78	117
C-AB	0.16	6.22	0.4	A	85	128
C-A					313	469
A-B					25	37
A-C					791	1186

Proposed Layout - 2018 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.52	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)	Run automatically
D2	2018 Baseline	PM Peak	ONE HOUR	16:45	18:15	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		ONE HOUR	✓	716	100.000
B		ONE HOUR	✓	78	100.000
C		ONE HOUR	✓	1069	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	23	693
	B	17	0	61
	C	1010	59	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	1
	B	0	0	0
	C	3	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	0.29	16.90	0.4	C	72	107
C-AB	0.38	4.66	1.9	A	300	450
C-A					681	1022
A-B					21	32
A-C					636	954

Proposed Layout - 2020 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.34	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)	Locked	Run automatically	Relationship type	Relationship
D3	2020 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0335

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		ONE HOUR	✓	919	100.000
B		ONE HOUR	✓	88	100.000
C		ONE HOUR	✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	28	891
	B	8	0	80
	C	402	47	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	7
	B	0	0	6
	C	10	4	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	0.28	15.10	0.4	C	81	121
C-AB	0.17	6.26	0.5	A	91	137
C-A					320	481
A-B					26	38
A-C					817	1226

Proposed Layout - 2020 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	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)	Locked	Run automatically	Relationship type	Relationship
D4	2020 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0316

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		ONE HOUR	✓	739	100.000
B		ONE HOUR	✓	80	100.000
C		ONE HOUR	✓	1103	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	24	715
	B	18	0	63
	C	1042	61	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	3	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	0.31	18.22	0.4	C	74	111
C-AB	0.42	4.90	2.2	A	332	498
C-A					680	1020
A-B					22	33
A-C					656	984

Proposed Layout - 2020 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	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)	Locked	Run automatically	Relationship type	Relationship
D5	2020 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D11

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		ONE HOUR	✓	936	100.000
B		ONE HOUR	✓	88	100.000
C		ONE HOUR	✓	461	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	28	908
	B	0.27	0	88
	C	393	68	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	7
	B	0	0	6
	C	10	3	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	0.26	13.59	0.4	B	81	121
C-AB	0.25	6.99	0.7	A	131	196
C-A					292	438
A-B					26	38
A-C					833	1250

Proposed Layout - 2020 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.78	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)	Locked	Run automatically	Relationship type	Relationship
D6	2020 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D4+D12

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		ONE HOUR	✓	750	100.000
B		ONE HOUR	✓	80	100.000
C		ONE HOUR	✓	1121	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	24	726
	B	0.54	0	80
	C	1048	73	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	1
	B	0	0	0
	C	3	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	0.21	10.93	0.3	B	74	111
C-AB	0.51	5.85	3.1	A	405	608
C-A					623	935
A-B					22	33
A-C					666	999

Proposed Layout - 2025 Baseline, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	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)	Locked	Run automatically	Relationship type	Relationship
D7	2025 Baseline	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D1*1.0936

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		ONE HOUR	✓	972	100.000
B		ONE HOUR	✓	93	100.000
C		ONE HOUR	✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	30	943
	B	9	0	84
	C	425	49	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	0	7
	B	0	0	6
	C	10	4	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	0.31	16.48	0.5	C	85	128
C-AB	0.19	6.35	0.6	A	102	153
C-A					333	500
A-B					27	41
A-C					865	1298

Proposed Layout - 2025 Baseline, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.12	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)	Locked	Run automatically	Relationship type	Relationship
D8	2025 Baseline	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D2*1.0895

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		ONE HOUR	✓	780	100.000
B		ONE HOUR	✓	85	100.000
C		ONE HOUR	✓	1165	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	25	755
	B	19	0	66
	C	1100	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	1
	B	0	0	0
	C	3	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	0.36	21.52	0.5	C	78	117
C-AB	0.51	5.62	3.2	A	403	605
C-A					665	998
A-B					23	34
A-C					693	1039

Proposed Layout - 2025 Baseline + Dev, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	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)	Locked	Run automatically	Relationship type	Relationship
D9	2025 Baseline + Dev	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D11

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		ONE HOUR	✓	989	100.000
B		ONE HOUR	✓	93	100.000
C		ONE HOUR	✓	487	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	30	960
	B	0.75	0	92
	C	416	70	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	7
	B	0	0	6
	C	10	3	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	0.28	14.70	0.4	B	85	128
C-AB	0.27	7.16	0.8	A	144	216
C-A					302	454
A-B					27	41
A-C					881	1321

Proposed Layout - 2025 Baseline + Dev, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.39	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)	Locked	Run automatically	Relationship type	Relationship
D10	2025 Baseline + Dev	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D12

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		ONE HOUR	✓	791	100.000
B		ONE HOUR	✓	85	100.000
C		ONE HOUR	✓	1183	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	25	766
	B	2	0	83
	C	1106	76	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	1
	B	0	0	0
	C	3	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	0.24	12.01	0.3	B	78	117
C-AB	0.62	7.31	4.7	A	489	734
C-A					596	894
A-B					23	34
A-C					703	1054

Proposed Layout - 2025 Baseline + Dev (Sensitivity), AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.12	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)	Locked	Run automatically	Relationship type	Relationship
D13	2025 Baseline + Dev (Sensitivity)	AM Peak	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D7+D15

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		ONE HOUR	✓	998	100.000
B		ONE HOUR	✓	93	100.000
C		ONE HOUR	✓	520	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	30	969
	B	0.75	0	92
	C	416	103	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	0	0	7
	B	0	0	6
	C	10	2	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	0.29	14.86	0.4	B	85	128
C-AB	0.40	8.76	1.4	A	213	319
C-A					264	396
A-B					27	41
A-C					889	1333

Proposed Layout - 2025 Baseline + Dev (Sensitivity), PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D5 - 2020 Baseline + Dev, AM Peak [Locked]	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.10	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)	Locked	Run automatically	Relationship type	Relationship
D14	2025 Baseline + Dev (Sensitivity)	PM Peak	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D16

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		ONE HOUR	✓	813	100.000
B		ONE HOUR	✓	85	100.000
C		ONE HOUR	✓	1197	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	25	788
	B	2	0	83
	C	1106	90	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	0	0	1
	B	0	0	0
	C	3	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	0.24	12.35	0.3	B	78	117
C-AB	0.75	11.72	8.0	B	591	887
C-A					507	760
A-B					23	34
A-C					723	1085



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