File Name: P:\UKPL1\TP\PROJECTS\DEVELOPMENT\FORMER GREENHILL NURSERY SITE\03 EXECUTION\DESIGN\CAD\20 SHEETS\60323405-D-0005-TRACKING FIRE TENDER INTERNAL.DWG
Last Plotted: 2014.07.16
Last saved by: GIBBONP

Project Management Initials: Designer: IM   Checked: CAB   Approved: AL   ISO A1 594mm x 841mm

AECOM

PROJECT

FORMER GREENHILL NURSERY

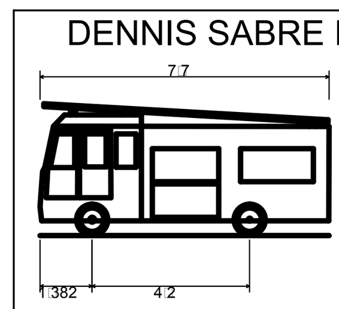
CLIENT

MORRIS

NOTES

1. ALL WORKS TO BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS (THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS, DESIGN MANUAL FOR ROADS AND BRIDGES, TRAFFIC SIGNS MANUAL AND LOCAL COUNCIL GUIDELINES).
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM.
3. DO NOT SCALE FROM ANY DRAWING. WORK TO FIGURED DIMENSIONS ONLY. ANY DISCREPANCIES IN DIMENSION ARE TO BE REFERRED TO THE DESIGNER BEFORE WORK IS PUT TO HAND.
4. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE.
5. ALL WORKS BY THE CONTRACTOR MUST BE CARRIED OUT IN SUCH A WAY THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.
6. ALL WORK IS TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENTS OF THE STATUTORY AUTHORITIES AND CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS.

DENNIS SABRE FIRE TENDER (LWB)



Dennis Sabre Fire Tender (LWB)	
Overall Length	7.700
Overall Width	2.430
Overall Body Height	3.512
Min Body Ground Clearance	0.397
Track Width	2.380
Lock to Lock Time	5.00
Kerb to Kerb Turning Radius	7.400

0 12.5 25

1:500 @ A1 1:1000 @ A3

ISSUE/REVISION

I/R	DATE	DESCRIPTION
-	10.07.2014	FIRST ISSUE

PROJECT NUMBER

60323405

SHEET TITLE

SWEPT PATH ANALYSIS
TRACKING FIRE TENDER VEHICLE
INTERNAL LAYOUT

SHEET NUMBER

60323405-D-0000-005

APPENDIX H – TRICS OUTPUT

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : K - MIXED PRIVATE HOUSING
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	GS	GLOUCESTERSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
10	WALES		
	CF	CARDIFF	1 days
11	SCOTLAND		
	AD	ABERDEEN CITY	1 days
	FI	FIFE	1 days
	HI	HIGHLAND	1 days

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

Filtering Stage 2 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: 22 to 162 (units:)
Range Selected by User: 19 to 200 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 01/06/14

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

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	3 days
Thursday	2 days
Friday	1 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:
Suburban Area (PPS6 Out of Centre) 10

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:

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.

Filtering Stage 3 selection:

Use Class:

C3	9 days

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

Population within 1 mile:

5,001 to 10,000	1 days
15,001 to 20,000	3 days
20,001 to 25,000	3 days
25,001 to 50,000	3 days

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

Population within 5 miles:

75,001 to 100,000	1 days
125,001 to 250,000	6 days
250,001 to 500,000	2 days
500,001 or More	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	6 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	10 days

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

LIST OF SITES relevant to selection parameters

1 AD-03-K-01 SEMI DET./FLATS ABERDEEN CITY
ASHGROVE ROAD

ABERDEEN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 24
Survey date: WEDNESDAY 11/05/05 Survey Type: MANUAL

2 CA-03-K-01 TERRACED & FLATS CAMBRIDGESHIRE
SOVEREIGN HOUSE
ALDERMANS DRIVE
PETERBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 40
Survey date: TUESDAY 18/10/11 Survey Type: MANUAL

3 CF-03-K-01 TERRACED/FLATS CARDIFF
BISHOPS ROAD
LLANDAFF NORTH
CARDIFF
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 84
Survey date: MONDAY 08/10/07 Survey Type: MANUAL

4 FI-03-K-01 MIXED HOUSING FIFE
WOODMILL ROAD

DUNFERMLINE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 36
Survey date: FRIDAY 20/04/07 Survey Type: MANUAL

5 GM-03-K-02 SEMI DET. & FLATS GREATER MANCHESTER
ABRAM CLOSE
FALLOWFIELD
MANCHESTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 33
Survey date: TUESDAY 11/10/11 Survey Type: MANUAL

6 GS-03-K-01 MIXED HOUSING GLOUCESTERSHIRE
CONEY HILL ROAD
CONEY HILL
GLOUCESTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 33
Survey date: THURSDAY 29/04/10 Survey Type: MANUAL

7 HI-03-K-02 MIXED HOUSING HIGHLAND
BALLIFEARY LANE

INVERNESS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 22
Survey date: TUESDAY 31/05/05 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 LN-03-K-01 TERRACED/FLATS LINCOLNSHIRE
DE WINT AVENUE

LINCOLN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 56
Survey date: WEDNESDAY 18/05/05 Survey Type: MANUAL

9 ST-03-K-01 MIXED HOUSING STAFFORDSHIRE
ROYAL WAY

STOKE-ON-TRENT
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 162
Survey date: THURSDAY 27/11/08 Survey Type: MANUAL

10 WS-03-K-02 MIXED HOUSING WEST SUSSEX
RUSSELL WAY

CRAWLEY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 61
Survey date: WEDNESDAY 28/11/07 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/K - MIXED PRIVATE HOUSING

VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	55	0.058	10	55	0.270	10	55	0.328
08:00 - 09:00	10	55	0.091	10	55	0.368	10	55	0.459
09:00 - 10:00	10	55	0.129	10	55	0.160	10	55	0.289
10:00 - 11:00	10	55	0.111	10	55	0.149	10	55	0.260
11:00 - 12:00	10	55	0.127	10	55	0.129	10	55	0.256
12:00 - 13:00	10	55	0.147	10	55	0.118	10	55	0.265
13:00 - 14:00	10	55	0.138	10	55	0.160	10	55	0.298
14:00 - 15:00	10	55	0.134	10	55	0.165	10	55	0.299
15:00 - 16:00	10	55	0.240	10	55	0.154	10	55	0.394
16:00 - 17:00	10	55	0.249	10	55	0.136	10	55	0.385
17:00 - 18:00	10	55	0.285	10	55	0.145	10	55	0.430
18:00 - 19:00	10	55	0.287	10	55	0.127	10	55	0.414
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.996			2.081			4.077

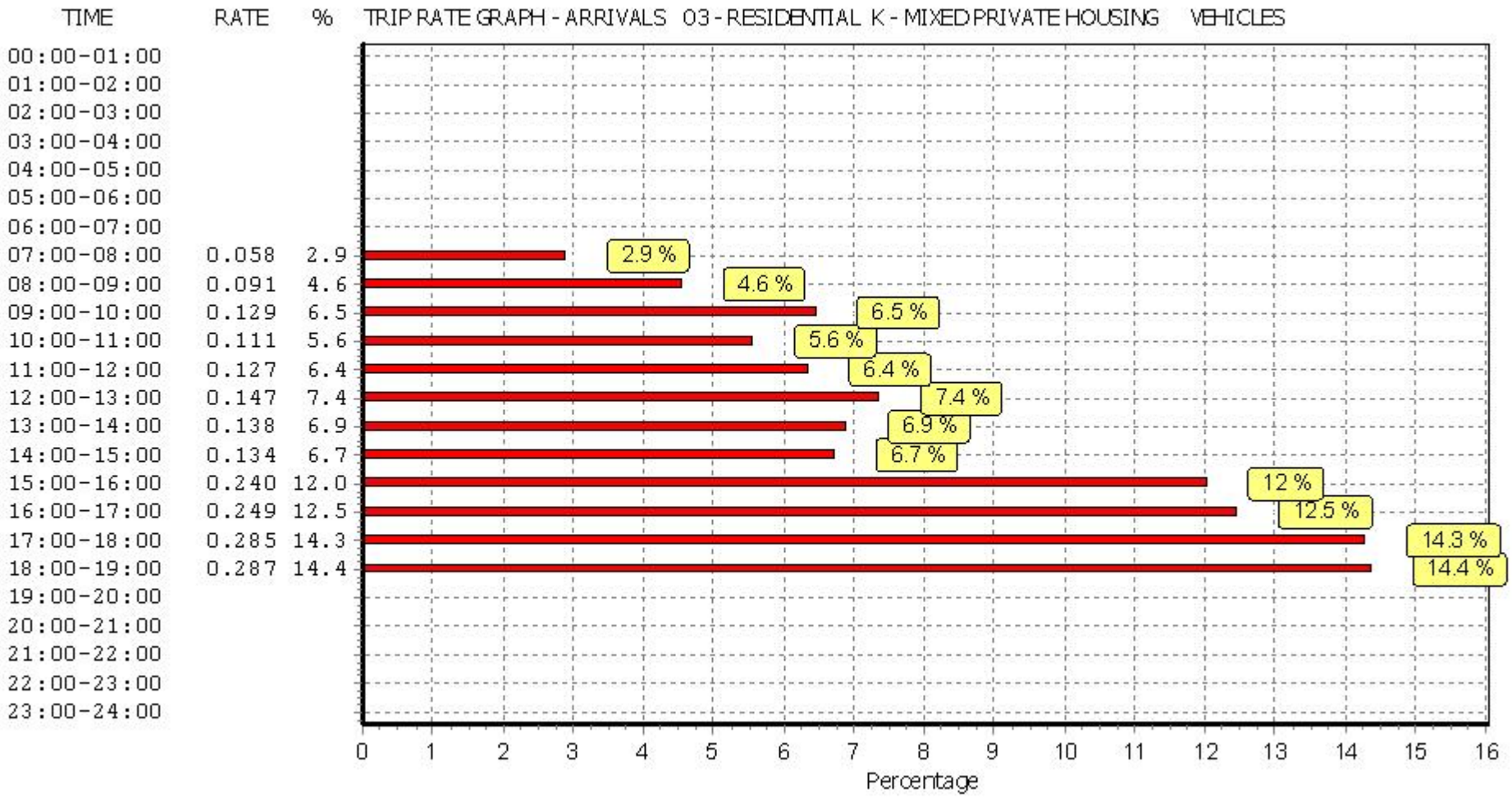
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

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

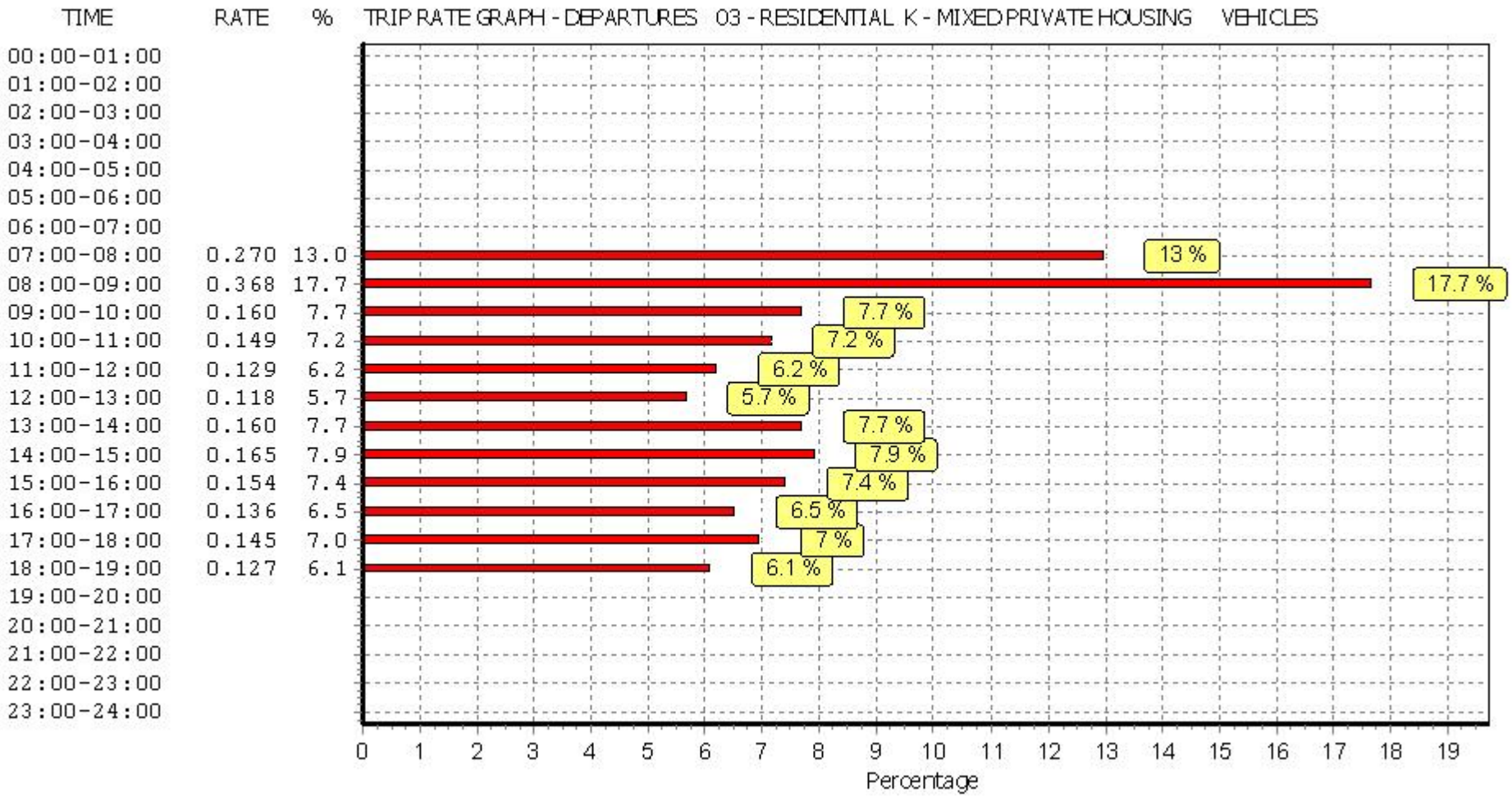
Parameter summary

Trip rate parameter range selected:	22 - 162 (units:)
Survey date date range:	01/01/05 - 01/06/14
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

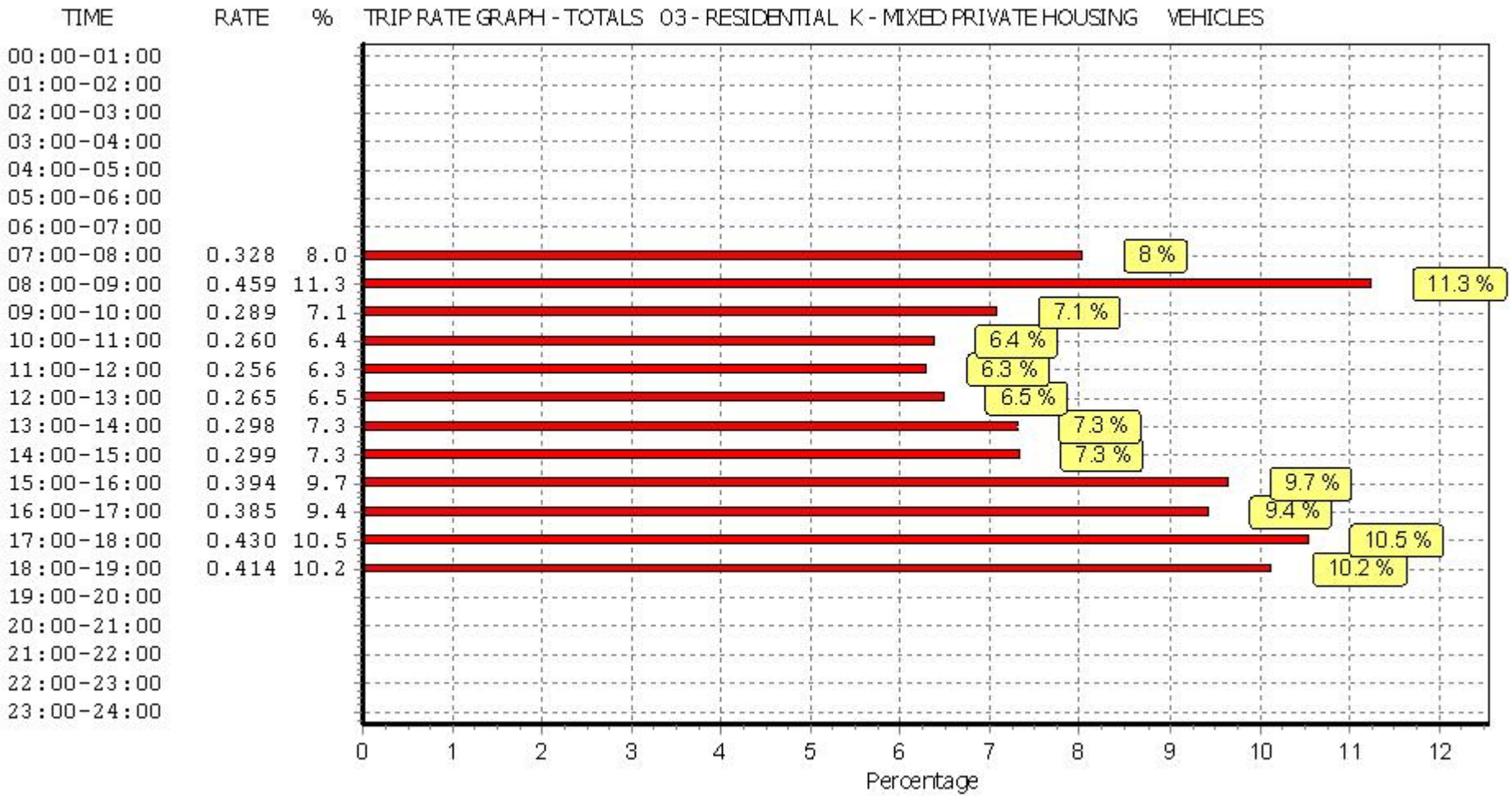
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

APPENDIX I – JUNCTION CAPACITY MODELLING OUTPUTS

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]

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

Filename: Site Access Picady_v0.2.arc8
Path: P:\UKLPL1-TP\PROJECTS\Development - Former Greenhill Nursery Site\03 EXECUTION\Capacity Assessments\PICADY
Report generation date: 16/07/2014 12:19:39

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Proposed Site Access - 2016 Base+Dev							
Stream B-AC	0.07	7.70	0.07	A	0.02	7.48	0.02	A
Stream C-AB	0.01	5.17	0.01	A	0.03	5.17	0.03	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	Proposed Site Access - 2019 Base+Dev							
Stream B-AC	0.07	7.78	0.07	A	0.02	7.56	0.02	A
Stream C-AB	0.01	5.14	0.01	A	0.03	5.14	0.03	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - 2016 Base+Dev, AM " model duration: 08:15 - 09:45
"D2 - 2016 Base+Dev, PM" model duration: 16:30 - 18:00
"D3 - 2019 Base+Dev, AM" model duration: 08:15 - 09:45
"D4 - 2019 Base+Dev, PM" model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 16/07/2014 12:19:37

File summary

Title	(untitled)
Location	
Site Number	
Date	11/07/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	KennonN
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

Proposed Site Access - 2016 Base+Dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Proposed Site Access	N/A			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)	Single Time Segment Only	Locked
2016 Base+Dev, AM	2016 Base+Dev	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	7.38	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Greenhill Road North		Major
B	B	SiteAccess		Minor
C	C	Greenhill Road South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										24	25

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	547.482	0.100	0.252	0.159	0.360
1	B-C	703.717	0.108	0.273	-	-
1	C-B	626.083	0.243	0.243	-	-

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 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 (%)
A	ONE HOUR	✓	319.00	100.000
B	ONE HOUR	✓	31.00	100.000
C	ONE HOUR	✓	260.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	4.000	315.000
	B	14.000	0.000	17.000
	C	257.000	3.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.45	0.00	0.55
	C	0.99	0.01	0.00

Vehicle Mix

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

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	7.70	0.07	A
C-AB	0.01	5.17	0.01	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	23.34	23.16	0.00	540.80	0.043	0.04	6.953	A
C-AB	3.08	3.06	0.00	698.91	0.004	0.00	5.173	A
C-A	192.66	192.66	0.00	-	-	-	-	-
A-B	3.01	3.01	0.00	-	-	-	-	-
A-C	237.15	237.15	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	27.87	27.82	0.00	524.49	0.053	0.06	7.248	A
C-AB	3.91	3.90	0.00	713.83	0.005	0.01	5.070	A
C-A	229.83	229.83	0.00	-	-	-	-	-
A-B	3.60	3.60	0.00	-	-	-	-	-
A-C	283.18	283.18	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	34.13	34.06	0.00	501.77	0.068	0.07	7.696	A
C-AB	5.20	5.19	0.00	734.68	0.007	0.01	4.934	A
C-A	281.06	281.06	0.00	-	-	-	-	-
A-B	4.40	4.40	0.00	-	-	-	-	-
A-C	346.82	346.82	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	34.13	34.13	0.00	501.77	0.068	0.07	7.698	A
C-AB	5.20	5.20	0.00	734.69	0.007	0.01	4.936	A
C-A	281.06	281.06	0.00	-	-	-	-	-
A-B	4.40	4.40	0.00	-	-	-	-	-
A-C	346.82	346.82	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	27.87	27.93	0.00	524.49	0.053	0.06	7.252	A
C-AB	3.91	3.92	0.00	713.83	0.005	0.01	5.072	A
C-A	229.82	229.82	0.00	-	-	-	-	-
A-B	3.60	3.60	0.00	-	-	-	-	-
A-C	283.18	283.18	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	23.34	23.38	0.00	540.79	0.043	0.05	6.960	A
C-AB	3.08	3.09	0.00	698.91	0.004	0.00	5.175	A
C-A	192.66	192.66	0.00	-	-	-	-	-
A-B	3.01	3.01	0.00	-	-	-	-	-
A-C	237.15	237.15	0.00	-	-	-	-	-

Proposed Site Access - 2016 Base+Dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Proposed Site Access	N/A			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)	Single Time Segment Only	Locked
2016 Base+Dev, PM	2016 Base+Dev	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	6.04	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Greenhill Road North		Major
B	B	SiteAccess		Minor
C	C	Greenhill Road South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										24	25

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	547.482	0.100	0.252	0.159	0.360
1	B-C	703.717	0.108	0.273	-	-
1	C-B	626.083	0.243	0.243	-	-

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 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 (%)
A	ONE HOUR	✓	311.00	100.000
B	ONE HOUR	✓	10.00	100.000
C	ONE HOUR	✓	285.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	12.000	299.000
	B	5.000	0.000	5.000
	C	274.000	11.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.50	0.00	0.50
	C	0.96	0.04	0.00

Vehicle Mix

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

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	7.48	0.02	A
C-AB	0.03	5.17	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	7.53	7.47	0.00	531.76	0.014	0.01	6.866	A
C-AB	11.49	11.42	0.00	708.69	0.016	0.02	5.163	A
C-A	203.07	203.07	0.00	-	-	-	-	-
A-B	9.03	9.03	0.00	-	-	-	-	-
A-C	225.10	225.10	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	8.99	8.98	0.00	515.11	0.017	0.02	7.112	A
C-AB	14.63	14.61	0.00	725.45	0.020	0.02	5.064	A
C-A	241.57	241.57	0.00	-	-	-	-	-
A-B	10.79	10.79	0.00	-	-	-	-	-
A-C	268.79	268.79	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.01	10.99	0.00	491.90	0.022	0.02	7.485	A
C-AB	19.54	19.50	0.00	748.76	0.026	0.03	4.936	A
C-A	294.25	294.25	0.00	-	-	-	-	-
A-B	13.21	13.21	0.00	-	-	-	-	-
A-C	329.21	329.21	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.01	11.01	0.00	491.89	0.022	0.02	7.485	A
C-AB	19.55	19.55	0.00	748.77	0.026	0.03	4.938	A
C-A	294.24	294.24	0.00	-	-	-	-	-
A-B	13.21	13.21	0.00	-	-	-	-	-
A-C	329.21	329.21	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	8.99	9.01	0.00	515.10	0.017	0.02	7.112	A
C-AB	14.65	14.68	0.00	725.47	0.020	0.02	5.064	A
C-A	241.56	241.56	0.00	-	-	-	-	-
A-B	10.79	10.79	0.00	-	-	-	-	-
A-C	268.79	268.79	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	7.53	7.54	0.00	531.74	0.014	0.01	6.869	A
C-AB	11.52	11.54	0.00	708.71	0.016	0.02	5.165	A
C-A	203.05	203.05	0.00	-	-	-	-	-
A-B	9.03	9.03	0.00	-	-	-	-	-
A-C	225.10	225.10	0.00	-	-	-	-	-

Proposed Site Access - 2019 Base+Dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Proposed Site Access	N/A			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)	Single Time Segment Only	Locked
2019 Base+Dev, AM	2019 Base+Dev	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	7.45	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Greenhill Road North		Major
B	B	SiteAccess		Minor
C	C	Greenhill Road South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										24	25

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	547.482	0.100	0.252	0.159	0.360
1	B-C	703.717	0.108	0.273	-	-
1	C-B	626.083	0.243	0.243	-	-

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 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 (%)
A	ONE HOUR	✓	332.00	100.000
B	ONE HOUR	✓	31.00	100.000
C	ONE HOUR	✓	272.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	4.000	328.000
	B	14.000	0.000	17.000
	C	269.000	3.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.45	0.00	0.55
	C	0.99	0.01	0.00

Vehicle Mix

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

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	7.78	0.07	A
C-AB	0.01	5.14	0.01	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	23.34	23.16	0.00	537.27	0.043	0.05	7.001	A
C-AB	3.12	3.10	0.00	702.79	0.004	0.00	5.144	A
C-A	201.65	201.65	0.00	-	-	-	-	-
A-B	3.01	3.01	0.00	-	-	-	-	-
A-C	246.94	246.94	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	27.87	27.82	0.00	520.25	0.054	0.06	7.310	A
C-AB	3.98	3.97	0.00	718.50	0.006	0.01	5.037	A
C-A	240.55	240.55	0.00	-	-	-	-	-
A-B	3.60	3.60	0.00	-	-	-	-	-
A-C	294.87	294.87	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	34.13	34.06	0.00	496.52	0.069	0.07	7.783	A
C-AB	5.31	5.30	0.00	740.44	0.007	0.01	4.896	A
C-A	294.17	294.17	0.00	-	-	-	-	-
A-B	4.40	4.40	0.00	-	-	-	-	-
A-C	361.13	361.13	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	34.13	34.13	0.00	496.52	0.069	0.07	7.785	A
C-AB	5.31	5.31	0.00	740.45	0.007	0.01	4.896	A
C-A	294.17	294.17	0.00	-	-	-	-	-
A-B	4.40	4.40	0.00	-	-	-	-	-
A-C	361.13	361.13	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	27.87	27.93	0.00	520.25	0.054	0.06	7.312	A
C-AB	3.98	3.99	0.00	718.51	0.006	0.01	5.037	A
C-A	240.54	240.54	0.00	-	-	-	-	-
A-B	3.60	3.60	0.00	-	-	-	-	-
A-C	294.87	294.87	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	23.34	23.38	0.00	537.27	0.043	0.05	7.005	A
C-AB	3.13	3.13	0.00	702.79	0.004	0.00	5.144	A
C-A	201.65	201.65	0.00	-	-	-	-	-
A-B	3.01	3.01	0.00	-	-	-	-	-
A-C	246.94	246.94	0.00	-	-	-	-	-

Proposed Site Access - 2019 Base+Dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Proposed Site Access	N/A			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)	Single Time Segment Only	Locked
2019 Base+Dev, PM	2019 Base+Dev	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	6.04	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Greenhill Road North		Major
B	B	SiteAccess		Minor
C	C	Greenhill Road South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00		2.20	90.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										24	25

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	547.482	0.100	0.252	0.159	0.360
1	B-C	703.717	0.108	0.273	-	-
1	C-B	626.083	0.243	0.243	-	-

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 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 (%)
A	ONE HOUR	✓	323.00	100.000
B	ONE HOUR	✓	10.00	100.000
C	ONE HOUR	✓	297.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	12.000	311.000
	B	5.000	0.000	5.000
	C	286.000	11.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.50	0.00	0.50
	C	0.96	0.04	0.00

Vehicle Mix

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

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	7.56	0.02	A
C-AB	0.03	5.14	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	7.53	7.47	0.00	528.37	0.014	0.01	6.911	A
C-AB	11.65	11.58	0.00	712.71	0.016	0.02	5.134	A
C-A	211.94	211.94	0.00	-	-	-	-	-
A-B	9.03	9.03	0.00	-	-	-	-	-
A-C	234.14	234.14	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	8.99	8.98	0.00	511.03	0.018	0.02	7.169	A
C-AB	14.88	14.86	0.00	730.28	0.020	0.02	5.031	A
C-A	252.12	252.12	0.00	-	-	-	-	-
A-B	10.79	10.79	0.00	-	-	-	-	-
A-C	279.58	279.58	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.01	10.99	0.00	486.85	0.023	0.02	7.564	A
C-AB	19.94	19.90	0.00	754.70	0.026	0.03	4.899	A
C-A	307.07	307.07	0.00	-	-	-	-	-
A-B	13.21	13.21	0.00	-	-	-	-	-
A-C	342.42	342.42	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	11.01	11.01	0.00	486.84	0.023	0.02	7.564	A
C-AB	19.95	19.95	0.00	754.71	0.026	0.03	4.901	A
C-A	307.06	307.06	0.00	-	-	-	-	-
A-B	13.21	13.21	0.00	-	-	-	-	-
A-C	342.42	342.42	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	8.99	9.01	0.00	511.02	0.018	0.02	7.173	A
C-AB	14.89	14.93	0.00	730.30	0.020	0.02	5.034	A
C-A	252.10	252.10	0.00	-	-	-	-	-
A-B	10.79	10.79	0.00	-	-	-	-	-
A-C	279.58	279.58	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	7.53	7.54	0.00	528.35	0.014	0.01	6.911	A
C-AB	11.68	11.70	0.00	712.74	0.016	0.02	5.137	A
C-A	211.92	211.92	0.00	-	-	-	-	-
A-B	9.03	9.03	0.00	-	-	-	-	-
A-C	234.14	234.14	0.00	-	-	-	-	-

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]

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

Filename: Northern Roundabout_100714.arc8
Path: P:\UKLPL1-TP\PROJECTS\Development - Former Greenhill Nursery Site\03 EXECUTION\Capacity Assessments\ARCADY
Report generation date: 10/07/2014 16:18:21

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Existing Layout - Base 2016							
Arm 1	0.30	3.45	0.23	A	0.31	3.46	0.24	A
Arm 2	0.19	7.67	0.16	A	0.13	7.19	0.12	A
Arm 3	0.97	12.13	0.49	B	1.01	12.22	0.51	B
Arm 4	0.02	6.58	0.02	A	0.01	6.47	0.01	A
Arm 5	0.21	3.27	0.18	A	0.17	3.11	0.14	A
	Existing Layout - Base 2019							
Arm 1	0.31	3.51	0.24	A	0.33	3.52	0.25	A
Arm 2	0.20	7.84	0.17	A	0.14	7.33	0.13	A
Arm 3	1.07	12.79	0.52	B	1.09	12.78	0.53	B
Arm 4	0.02	6.68	0.02	A	0.01	6.55	0.01	A
Arm 5	0.22	3.32	0.18	A	0.18	3.15	0.15	A
	Existing Layout - Base+Dev 2016							
Arm 1	0.30	3.46	0.23	A	0.33	3.50	0.25	A
Arm 2	0.19	7.69	0.16	A	0.14	7.28	0.12	A
Arm 3	1.07	12.74	0.52	B	1.05	12.45	0.52	B
Arm 4	0.02	6.65	0.02	A	0.01	6.50	0.01	A
Arm 5	0.21	3.29	0.18	A	0.17	3.13	0.14	A
	Existing Layout - Base+Dev 2019							
Arm 1	0.32	3.51	0.24	A	0.35	3.56	0.26	A
Arm 2	0.20	7.86	0.17	A	0.15	7.43	0.13	A
Arm 3	1.17	13.48	0.54	B	1.16	13.19	0.54	B
Arm 4	0.02	6.75	0.02	A	0.01	6.59	0.01	A
Arm 5	0.23	3.35	0.19	A	0.18	3.17	0.15	A

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

"D1 - Base 2016, AM " model duration: 08:15 - 09:45
"D2 - Base 2016, PM" model duration: 16:30 - 18:00
"D3 - Base+Dev 2016, AM" model duration: 08:15 - 09:45
"D4 - Base+Dev 2016, PM" model duration: 16:30 - 18:00
"D5 - Base 2019, AM" model duration: 08:15 - 09:45
"D6 - Base 2019, PM" model duration: 16:30 - 18:00
"D7 - Base+Dev 2019, AM" model duration: 08:15 - 09:45
"D8 - Base+Dev 2019, PM" model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 10/07/2014 16:18:17

File summary

Title	(untitled)
Location	
Site Number	
Date	30/06/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
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 - Base 2016, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2016, AM	Base 2016	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			6.54	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	281.00	100.000
2	ONE HOUR	✓	81.00	100.000
3	ONE HOUR	✓	264.00	100.000
4	ONE HOUR	✓	9.00	100.000
5	ONE HOUR	✓	213.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	0.000	10.000	191.000	1.000	79.000
	2	10.000	0.000	32.000	0.000	39.000
	3	189.000	25.000	0.000	1.000	49.000
	4	2.000	0.000	5.000	0.000	2.000
	5	88.000	35.000	88.000	1.000	1.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.04	0.68	0.00	0.28
	2	0.12	0.00	0.40	0.00	0.48
	3	0.72	0.09	0.00	0.00	0.19
	4	0.22	0.00	0.56	0.00	0.22
	5	0.41	0.16	0.41	0.00	0.00

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.23	3.45	0.30	A
2	0.16	7.67	0.19	A
3	0.49	12.13	0.97	B
4	0.02	6.58	0.02	A
5	0.18	3.27	0.21	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	211.55	210.83	116.18	0.00	1385.18	0.153	0.18	3.064	A
2	60.98	60.54	274.61	0.00	609.57	0.100	0.11	6.551	A
3	198.75	196.82	98.15	0.00	603.24	0.329	0.48	8.818	A
4	6.78	6.73	292.72	0.00	610.27	0.011	0.01	5.964	A
5	160.36	159.83	172.25	0.00	1383.08	0.116	0.13	2.941	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	252.61	252.43	139.20	0.00	1371.33	0.184	0.22	3.217	A
2	72.82	72.70	328.79	0.00	588.07	0.124	0.14	6.983	A
3	237.33	236.67	117.64	0.00	596.49	0.398	0.65	9.985	A
4	8.09	8.08	351.62	0.00	587.48	0.014	0.01	6.212	A
5	191.48	191.35	207.11	0.00	1362.07	0.141	0.16	3.074	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	309.39	309.11	170.42	0.00	1352.55	0.229	0.30	3.450	A
2	89.18	88.99	402.61	0.00	558.77	0.160	0.19	7.659	A
3	290.67	289.44	144.04	0.00	587.35	0.495	0.96	12.034	B
4	9.91	9.89	430.18	0.00	557.08	0.018	0.02	6.578	A
5	234.52	234.32	253.31	0.00	1334.22	0.176	0.21	3.272	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	309.39	309.38	170.65	0.00	1352.40	0.229	0.30	3.450	A
2	89.18	89.18	402.97	0.00	558.63	0.160	0.19	7.667	A
3	290.67	290.62	144.23	0.00	587.28	0.495	0.97	12.129	B
4	9.91	9.91	431.55	0.00	556.56	0.018	0.02	6.584	A
5	234.52	234.52	254.30	0.00	1333.62	0.176	0.21	3.274	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	252.61	252.89	139.58	0.00	1371.10	0.184	0.23	3.221	A
2	72.82	73.00	329.38	0.00	587.83	0.124	0.14	6.994	A
3	237.33	238.51	117.96	0.00	596.38	0.398	0.67	10.094	B
4	8.09	8.11	353.76	0.00	586.65	0.014	0.01	6.224	A
5	191.48	191.68	208.65	0.00	1361.13	0.141	0.16	3.078	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	211.55	211.73	116.84	0.00	1384.78	0.153	0.18	3.071	A
2	60.98	61.10	275.78	0.00	609.10	0.100	0.11	6.572	A
3	198.75	199.45	98.75	0.00	603.03	0.330	0.50	8.937	A
4	6.78	6.79	295.94	0.00	609.02	0.011	0.01	5.979	A
5	160.36	160.49	174.50	0.00	1381.72	0.116	0.13	2.947	A

Existing Layout - Base 2016, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2016, PM	Base 2016	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			6.65	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	296.00	100.000
2	ONE HOUR	✓	61.00	100.000
3	ONE HOUR	✓	274.00	100.000
4	ONE HOUR	✓	7.00	100.000
5	ONE HOUR	✓	174.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	1.000	15.000	214.000	5.000	61.000
	2	9.000	0.000	24.000	0.000	28.000
	3	169.000	21.000	2.000	2.000	80.000
	4	5.000	0.000	2.000	0.000	0.000
	5	66.000	48.000	56.000	0.000	4.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.72	0.02	0.21
	2	0.15	0.00	0.39	0.00	0.46
	3	0.62	0.08	0.01	0.01	0.29
	4	0.71	0.00	0.29	0.00	0.00
	5	0.38	0.28	0.32	0.00	0.02

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.24	3.46	0.31	A
2	0.12	7.19	0.13	A
3	0.51	12.22	1.01	B
4	0.01	6.47	0.01	A
5	0.14	3.11	0.17	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	222.84	222.09	99.69	0.00	1395.10	0.160	0.19	3.067	A
2	45.92	45.60	258.85	0.00	615.82	0.075	0.08	6.311	A
3	206.28	204.26	80.93	0.00	609.19	0.339	0.50	8.846	A
4	5.27	5.24	279.95	0.00	615.21	0.009	0.01	5.901	A
5	131.00	130.58	155.85	0.00	1392.96	0.094	0.10	2.852	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	266.10	265.91	119.44	0.00	1383.22	0.192	0.24	3.221	A
2	54.84	54.76	309.92	0.00	595.55	0.092	0.10	6.657	A
3	246.32	245.63	96.99	0.00	603.63	0.408	0.68	10.035	B
4	6.29	6.28	336.34	0.00	593.39	0.011	0.01	6.131	A
5	156.42	156.32	187.38	0.00	1373.96	0.114	0.13	2.956	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	325.90	325.60	146.23	0.00	1367.10	0.238	0.31	3.456	A
2	67.16	67.03	379.51	0.00	567.94	0.118	0.13	7.185	A
3	301.68	300.39	118.76	0.00	596.10	0.506	1.00	12.119	B
4	7.71	7.69	411.46	0.00	564.33	0.014	0.01	6.466	A
5	191.58	191.43	229.18	0.00	1348.76	0.142	0.16	3.110	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	325.90	325.90	146.43	0.00	1366.98	0.238	0.31	3.457	A
2	67.16	67.16	379.85	0.00	567.80	0.118	0.13	7.189	A
3	301.68	301.63	118.91	0.00	596.05	0.506	1.01	12.221	B
4	7.71	7.71	412.83	0.00	563.80	0.014	0.01	6.472	A
5	191.58	191.58	230.08	0.00	1348.22	0.142	0.17	3.111	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	266.10	266.39	119.76	0.00	1383.03	0.192	0.24	3.226	A
2	54.84	54.96	310.49	0.00	595.33	0.092	0.10	6.662	A
3	246.32	247.56	97.24	0.00	603.55	0.408	0.70	10.147	B
4	6.29	6.30	338.49	0.00	592.56	0.011	0.01	6.142	A
5	156.42	156.57	188.78	0.00	1373.11	0.114	0.13	2.958	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	222.84	223.04	100.25	0.00	1394.76	0.160	0.19	3.074	A
2	45.92	46.01	259.96	0.00	615.38	0.075	0.08	6.325	A
3	206.28	207.01	81.41	0.00	609.03	0.339	0.52	8.972	A
4	5.27	5.28	283.14	0.00	613.98	0.009	0.01	5.916	A
5	131.00	131.10	157.88	0.00	1391.74	0.094	0.10	2.857	A

Existing Layout - Base+Dev 2016, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2016, AM	Base+Dev 2016	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			6.82	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	284.00	100.000
2	ONE HOUR	✓	81.00	100.000
3	ONE HOUR	✓	277.00	100.000
4	ONE HOUR	✓	9.00	100.000
5	ONE HOUR	✓	213.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	0.000	10.000	194.000	1.000	79.000
	2	10.000	0.000	32.000	0.000	39.000
	3	198.000	26.000	0.000	1.000	52.000
	4	2.000	0.000	5.000	0.000	2.000
	5	88.000	35.000	88.000	1.000	1.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.04	0.68	0.00	0.28
	2	0.12	0.00	0.40	0.00	0.48
	3	0.71	0.09	0.00	0.00	0.19
	4	0.22	0.00	0.56	0.00	0.22
	5	0.41	0.16	0.41	0.00	0.00

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.23	3.46	0.30	A
2	0.16	7.69	0.19	A
3	0.52	12.74	1.07	B
4	0.02	6.65	0.02	A
5	0.18	3.29	0.21	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	213.81	213.08	116.92	0.00	1384.74	0.154	0.18	3.071	A
2	60.98	60.54	276.85	0.00	608.68	0.100	0.11	6.561	A
3	208.54	206.46	98.15	0.00	603.24	0.346	0.52	9.027	A
4	6.78	6.73	302.36	0.00	606.54	0.011	0.01	6.001	A
5	160.36	159.83	179.66	0.00	1378.61	0.116	0.13	2.952	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	255.31	255.13	140.09	0.00	1370.79	0.186	0.23	3.226	A
2	72.82	72.70	331.48	0.00	587.00	0.124	0.14	6.997	A
3	249.02	248.28	117.64	0.00	596.49	0.417	0.70	10.315	B
4	8.09	8.08	363.23	0.00	582.99	0.014	0.01	6.261	A
5	191.48	191.35	216.04	0.00	1356.68	0.141	0.16	3.088	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	312.69	312.40	171.50	0.00	1351.89	0.231	0.30	3.463	A
2	89.18	88.99	405.91	0.00	557.46	0.160	0.19	7.681	A
3	304.98	303.59	144.03	0.00	587.35	0.519	1.05	12.621	B
4	9.91	9.89	444.33	0.00	551.61	0.018	0.02	6.644	A
5	234.52	234.32	264.19	0.00	1327.66	0.177	0.21	3.292	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	312.69	312.69	171.75	0.00	1351.74	0.231	0.30	3.463	A
2	89.18	89.18	406.27	0.00	557.32	0.160	0.19	7.689	A
3	304.98	304.93	144.23	0.00	587.28	0.519	1.07	12.737	B
4	9.91	9.91	445.85	0.00	551.02	0.018	0.02	6.652	A
5	234.52	234.52	265.30	0.00	1326.99	0.177	0.21	3.294	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	255.31	255.59	140.49	0.00	1370.55	0.186	0.23	3.231	A
2	72.82	73.00	332.09	0.00	586.76	0.124	0.14	7.008	A
3	249.02	250.36	117.96	0.00	596.38	0.418	0.73	10.445	B
4	8.09	8.11	365.61	0.00	582.07	0.014	0.01	6.274	A
5	191.48	191.68	217.77	0.00	1355.64	0.141	0.17	3.095	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	213.81	214.00	117.60	0.00	1384.33	0.154	0.18	3.075	A
2	60.98	61.10	278.04	0.00	608.21	0.100	0.11	6.580	A
3	208.54	209.32	98.75	0.00	603.03	0.346	0.54	9.161	A
4	6.78	6.79	305.80	0.00	605.21	0.011	0.01	6.017	A
5	160.36	160.49	182.09	0.00	1377.15	0.116	0.13	2.958	A

Existing Layout - Base+Dev 2016, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2016, PM	Base+Dev 2016	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			6.74	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	305.00	100.000
2	ONE HOUR	✓	62.00	100.000
3	ONE HOUR	✓	279.00	100.000
4	ONE HOUR	✓	7.00	100.000
5	ONE HOUR	✓	177.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	1.000	15.000	223.000	5.000	61.000
	2	9.000	0.000	25.000	0.000	28.000
	3	172.000	22.000	2.000	2.000	81.000
	4	5.000	0.000	2.000	0.000	0.000
	5	66.000	48.000	59.000	0.000	4.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.73	0.02	0.20
	2	0.15	0.00	0.40	0.00	0.45
	3	0.62	0.08	0.01	0.01	0.29
	4	0.71	0.00	0.29	0.00	0.00
	5	0.37	0.27	0.33	0.00	0.02

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	3.50	0.33	A
2	0.12	7.28	0.14	A
3	0.52	12.45	1.05	B
4	0.01	6.50	0.01	A
5	0.14	3.13	0.17	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	229.62	228.83	102.69	0.00	1393.30	0.165	0.20	3.090	A
2	46.68	46.35	267.85	0.00	612.25	0.076	0.08	6.359	A
3	210.05	207.97	80.93	0.00	609.20	0.345	0.52	8.928	A
4	5.27	5.24	283.66	0.00	613.77	0.009	0.01	5.915	A
5	133.25	132.83	158.82	0.00	1391.17	0.096	0.11	2.861	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	274.19	273.99	123.03	0.00	1381.06	0.199	0.25	3.251	A
2	55.74	55.65	320.70	0.00	591.28	0.094	0.10	6.721	A
3	250.82	250.10	96.99	0.00	603.64	0.416	0.70	10.161	B
4	6.29	6.28	340.80	0.00	591.66	0.011	0.01	6.149	A
5	159.12	159.02	190.96	0.00	1371.80	0.116	0.13	2.967	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	335.81	335.50	150.63	0.00	1364.45	0.246	0.32	3.498	A
2	68.26	68.13	392.70	0.00	562.70	0.121	0.14	7.277	A
3	307.18	305.84	118.76	0.00	596.10	0.515	1.04	12.342	B
4	7.71	7.69	416.90	0.00	562.22	0.014	0.01	6.491	A
5	194.88	194.73	233.54	0.00	1346.14	0.145	0.17	3.126	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	335.81	335.81	150.83	0.00	1364.33	0.246	0.33	3.499	A
2	68.26	68.26	393.06	0.00	562.56	0.121	0.14	7.282	A
3	307.18	307.13	118.91	0.00	596.05	0.515	1.05	12.454	B
4	7.71	7.71	418.33	0.00	561.67	0.014	0.01	6.497	A
5	194.88	194.88	234.48	0.00	1345.57	0.145	0.17	3.127	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	274.19	274.50	123.37	0.00	1380.86	0.199	0.25	3.256	A
2	55.74	55.87	321.29	0.00	591.04	0.094	0.10	6.727	A
3	250.82	252.11	97.24	0.00	603.55	0.416	0.72	10.281	B
4	6.29	6.30	343.04	0.00	590.80	0.011	0.01	6.158	A
5	159.12	159.27	192.43	0.00	1370.91	0.116	0.13	2.970	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	229.62	229.82	103.27	0.00	1392.95	0.165	0.20	3.094	A
2	46.68	46.76	269.01	0.00	611.79	0.076	0.08	6.374	A
3	210.05	210.81	81.41	0.00	609.03	0.345	0.53	9.059	A
4	5.27	5.28	286.93	0.00	612.51	0.009	0.01	5.930	A
5	133.25	133.36	160.91	0.00	1389.91	0.096	0.11	2.866	A

Existing Layout - Base 2019, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2019, AM	Base 2019	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			6.81	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	294.00	100.000
2	ONE HOUR	✓	85.00	100.000
3	ONE HOUR	✓	276.00	100.000
4	ONE HOUR	✓	9.00	100.000
5	ONE HOUR	✓	220.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	0.000	11.000	200.000	1.000	82.000
	2	11.000	0.000	33.000	0.000	41.000
	3	197.000	26.000	0.000	1.000	52.000
	4	2.000	0.000	5.000	0.000	2.000
	5	92.000	36.000	90.000	1.000	1.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.04	0.68	0.00	0.28
	2	0.13	0.00	0.39	0.00	0.48
	3	0.71	0.09	0.00	0.00	0.19
	4	0.22	0.00	0.56	0.00	0.22
	5	0.42	0.16	0.41	0.00	0.00

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.24	3.51	0.31	A
2	0.17	7.84	0.20	A
3	0.52	12.79	1.07	B
4	0.02	6.68	0.02	A
5	0.18	3.32	0.22	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	221.34	220.58	119.17	0.00	1383.38	0.160	0.19	3.094	A
2	63.99	63.52	285.10	0.00	605.41	0.106	0.12	6.638	A
3	207.79	205.71	102.63	0.00	601.68	0.345	0.52	9.046	A
4	6.78	6.73	306.10	0.00	605.09	0.011	0.01	6.016	A
5	165.63	165.08	179.66	0.00	1378.61	0.120	0.14	2.964	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	264.30	264.11	142.78	0.00	1369.17	0.193	0.24	3.257	A
2	76.41	76.28	341.36	0.00	583.08	0.131	0.15	7.101	A
3	248.12	247.38	123.03	0.00	594.62	0.417	0.70	10.344	B
4	8.09	8.08	367.72	0.00	581.25	0.014	0.01	6.280	A
5	197.78	197.64	216.04	0.00	1356.68	0.146	0.17	3.105	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	323.70	323.40	174.80	0.00	1349.91	0.240	0.31	3.507	A
2	93.59	93.38	418.00	0.00	552.66	0.169	0.20	7.835	A
3	303.88	302.49	150.62	0.00	585.07	0.519	1.05	12.674	B
4	9.91	9.89	449.82	0.00	549.49	0.018	0.02	6.671	A
5	242.22	242.02	264.18	0.00	1327.67	0.182	0.22	3.315	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	323.70	323.70	175.06	0.00	1349.75	0.240	0.31	3.507	A
2	93.59	93.58	418.38	0.00	552.51	0.169	0.20	7.844	A
3	303.88	303.82	150.84	0.00	585.00	0.519	1.07	12.795	B
4	9.91	9.91	451.36	0.00	548.89	0.018	0.02	6.678	A
5	242.22	242.22	265.30	0.00	1326.99	0.183	0.22	3.317	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	264.30	264.60	143.19	0.00	1368.93	0.193	0.24	3.260	A
2	76.41	76.62	341.99	0.00	582.83	0.131	0.15	7.116	A
3	248.12	249.46	123.37	0.00	594.50	0.417	0.73	10.475	B
4	8.09	8.11	370.13	0.00	580.32	0.014	0.01	6.293	A
5	197.78	197.98	217.78	0.00	1355.63	0.146	0.17	3.112	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	221.34	221.53	119.86	0.00	1382.97	0.160	0.19	3.101	A
2	63.99	64.12	286.34	0.00	604.92	0.106	0.12	6.660	A
3	207.79	208.56	103.28	0.00	601.46	0.345	0.54	9.182	A
4	6.78	6.79	309.58	0.00	603.75	0.011	0.01	6.032	A
5	165.63	165.76	182.09	0.00	1377.14	0.120	0.14	2.971	A

Existing Layout - Base 2019, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2019, PM	Base 2019	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			6.86	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	310.00	100.000
2	ONE HOUR	✓	64.00	100.000
3	ONE HOUR	✓	284.00	100.000
4	ONE HOUR	✓	7.00	100.000
5	ONE HOUR	✓	182.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	1.000	16.000	224.000	5.000	64.000
	2	10.000	0.000	25.000	0.000	29.000
	3	177.000	22.000	0.000	2.000	83.000
	4	5.000	0.000	2.000	0.000	0.000
	5	69.000	50.000	59.000	0.000	4.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.72	0.02	0.21
	2	0.16	0.00	0.39	0.00	0.45
	3	0.62	0.08	0.00	0.01	0.29
	4	0.71	0.00	0.29	0.00	0.00
	5	0.38	0.27	0.32	0.00	0.02

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	3.52	0.33	A
2	0.13	7.33	0.14	A
3	0.53	12.78	1.09	B
4	0.01	6.55	0.01	A
5	0.15	3.15	0.18	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	233.38	232.58	102.69	0.00	1393.30	0.168	0.20	3.100	A
2	48.18	47.84	269.35	0.00	611.66	0.079	0.08	6.380	A
3	213.81	211.67	84.67	0.00	607.90	0.352	0.53	9.038	A
4	5.27	5.24	291.11	0.00	610.89	0.009	0.01	5.943	A
5	137.02	136.58	161.78	0.00	1389.39	0.099	0.11	2.873	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	278.68	278.48	123.03	0.00	1381.06	0.202	0.25	3.264	A
2	57.53	57.45	322.50	0.00	590.56	0.097	0.11	6.753	A
3	255.31	254.56	101.48	0.00	602.08	0.424	0.72	10.336	B
4	6.29	6.28	349.75	0.00	588.20	0.011	0.01	6.185	A
5	163.61	163.51	194.53	0.00	1369.65	0.119	0.14	2.984	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	341.32	341.00	150.63	0.00	1364.45	0.250	0.33	3.517	A
2	70.47	70.33	394.90	0.00	561.83	0.125	0.14	7.322	A
3	312.69	311.26	124.25	0.00	594.20	0.526	1.08	12.657	B
4	7.71	7.69	427.82	0.00	558.00	0.014	0.01	6.541	A
5	200.39	200.23	237.88	0.00	1343.52	0.149	0.17	3.148	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	341.32	341.31	150.83	0.00	1364.33	0.250	0.33	3.518	A
2	70.47	70.46	395.26	0.00	561.69	0.125	0.14	7.327	A
3	312.69	312.63	124.41	0.00	594.14	0.526	1.09	12.780	B
4	7.71	7.71	429.34	0.00	557.41	0.014	0.01	6.548	A
5	200.39	200.38	238.88	0.00	1342.92	0.149	0.18	3.150	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	278.68	279.00	123.37	0.00	1380.86	0.202	0.25	3.267	A
2	57.53	57.67	323.09	0.00	590.33	0.097	0.11	6.762	A
3	255.31	256.69	101.74	0.00	601.99	0.424	0.75	10.468	B
4	6.29	6.31	352.12	0.00	587.29	0.011	0.01	6.198	A
5	163.61	163.77	196.08	0.00	1368.71	0.120	0.14	2.989	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	233.38	233.59	103.27	0.00	1392.95	0.168	0.20	3.107	A
2	48.18	48.27	270.51	0.00	611.20	0.079	0.09	6.395	A
3	213.81	214.61	85.18	0.00	607.73	0.352	0.55	9.176	A
4	5.27	5.28	294.51	0.00	609.58	0.009	0.01	5.959	A
5	137.02	137.12	163.95	0.00	1388.08	0.099	0.11	2.879	A

Existing Layout - Base+Dev 2019, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2019, AM	Base+Dev 2019	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			7.12	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	294.00	100.000
2	ONE HOUR	✓	85.00	100.000
3	ONE HOUR	✓	289.00	100.000
4	ONE HOUR	✓	9.00	100.000
5	ONE HOUR	✓	222.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	0.000	11.000	200.000	1.000	82.000
	2	11.000	0.000	33.000	0.000	41.000
	3	207.000	27.000	0.000	1.000	54.000
	4	2.000	0.000	5.000	0.000	2.000
	5	92.000	36.000	92.000	1.000	1.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.04	0.68	0.00	0.28
	2	0.13	0.00	0.39	0.00	0.48
	3	0.72	0.09	0.00	0.00	0.19
	4	0.22	0.00	0.56	0.00	0.22
	5	0.41	0.16	0.41	0.00	0.00

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.24	3.51	0.32	A
2	0.17	7.86	0.20	A
3	0.54	13.48	1.17	B
4	0.02	6.75	0.02	A
5	0.19	3.35	0.23	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	221.34	220.58	121.41	0.00	1382.04	0.160	0.19	3.098	A
2	63.99	63.52	286.60	0.00	604.81	0.106	0.12	6.645	A
3	217.57	215.34	102.63	0.00	601.68	0.362	0.56	9.267	A
4	6.78	6.73	315.73	0.00	601.36	0.011	0.01	6.053	A
5	167.13	166.58	187.82	0.00	1373.69	0.122	0.14	2.980	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	264.30	264.11	145.47	0.00	1367.56	0.193	0.24	3.262	A
2	76.41	76.28	343.16	0.00	582.36	0.131	0.15	7.111	A
3	259.81	258.99	123.02	0.00	594.62	0.437	0.76	10.699	B
4	8.09	8.08	379.32	0.00	576.76	0.014	0.01	6.329	A
5	199.57	199.43	225.86	0.00	1350.76	0.148	0.17	3.126	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	323.70	323.40	178.08	0.00	1347.93	0.240	0.31	3.513	A
2	93.59	93.38	420.20	0.00	551.79	0.170	0.20	7.850	A
3	318.19	316.61	150.62	0.00	585.07	0.544	1.16	13.327	B
4	9.91	9.89	463.94	0.00	544.02	0.018	0.02	6.739	A
5	244.43	244.21	276.13	0.00	1320.46	0.185	0.23	3.344	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	323.70	323.70	178.36	0.00	1347.77	0.240	0.32	3.514	A
2	93.59	93.58	420.59	0.00	551.64	0.170	0.20	7.859	A
3	318.19	318.13	150.84	0.00	585.00	0.544	1.17	13.479	B
4	9.91	9.91	465.66	0.00	543.36	0.018	0.02	6.747	A
5	244.43	244.42	277.40	0.00	1319.70	0.185	0.23	3.347	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	264.30	264.60	145.91	0.00	1367.29	0.193	0.24	3.267	A
2	76.41	76.62	343.80	0.00	582.11	0.131	0.15	7.126	A
3	259.81	261.33	123.37	0.00	594.50	0.437	0.79	10.854	B
4	8.09	8.11	382.00	0.00	575.73	0.014	0.01	6.341	A
5	199.57	199.78	227.82	0.00	1349.58	0.148	0.17	3.133	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	221.34	221.54	122.13	0.00	1381.60	0.160	0.19	3.105	A
2	63.99	64.12	287.84	0.00	604.32	0.106	0.12	6.665	A
3	217.57	218.44	103.28	0.00	601.46	0.362	0.58	9.420	A
4	6.78	6.79	319.46	0.00	599.92	0.011	0.01	6.068	A
5	167.13	167.27	190.45	0.00	1372.11	0.122	0.14	2.989	A

Existing Layout - Base+Dev 2019, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2019, PM	Base+Dev 2019	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Northern Roundabout	Roundabout	1,2,3,4,5			7.04	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Heath Road	
2	2	Stanfordham Drive	
3	3	Greenhill Road (N)	
4	4	Knightswood Court	
5	5	Greenhill Road (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.20	5.40	7.00	20.00	23.00	40.00	
2	2.70	4.10	1.10	4.50	24.00	40.00	
3	2.80	3.80	1.10	3.00	24.00	40.00	
4	2.90	3.60	1.10	4.00	25.00	42.00	
5	3.80	5.40	32.00	8.00	23.00	24.00	

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)	0.602	1455.090
2		(calculated)	(calculated)	0.397	718.554
3		(calculated)	(calculated)	0.346	637.212
4		(calculated)	(calculated)	0.387	723.519
5		(calculated)	(calculated)	0.603	1486.894

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	✓	319.00	100.000
2	ONE HOUR	✓	65.00	100.000
3	ONE HOUR	✓	292.00	100.000
4	ONE HOUR	✓	7.00	100.000
5	ONE HOUR	✓	184.00	100.000

Turning Proportions

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

		To				
		1	2	3	4	5
From	1	1.000	16.000	233.000	5.000	64.000
	2	10.000	0.000	26.000	0.000	29.000
	3	180.000	23.000	2.000	2.000	85.000
	4	5.000	0.000	2.000	0.000	0.000
	5	69.000	50.000	61.000	0.000	4.000

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

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.73	0.02	0.20
	2	0.15	0.00	0.40	0.00	0.45
	3	0.62	0.08	0.01	0.01	0.29
	4	0.71	0.00	0.29	0.00	0.00
	5	0.38	0.27	0.33	0.00	0.02

Vehicle Mix

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

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.26	3.56	0.35	A
2	0.13	7.43	0.15	A
3	0.54	13.19	1.16	B
4	0.01	6.59	0.01	A
5	0.15	3.17	0.18	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	240.16	239.33	106.43	0.00	1391.05	0.173	0.21	3.124	A
2	48.94	48.59	279.09	0.00	607.79	0.081	0.09	6.433	A
3	219.83	217.60	84.67	0.00	607.90	0.362	0.56	9.173	A
4	5.27	5.24	297.03	0.00	608.60	0.009	0.01	5.966	A
5	138.52	138.08	166.23	0.00	1386.70	0.100	0.11	2.883	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	286.77	286.56	127.52	0.00	1378.36	0.208	0.26	3.297	A
2	58.43	58.34	334.17	0.00	585.93	0.100	0.11	6.823	A
3	262.50	261.70	101.48	0.00	602.08	0.436	0.76	10.551	B
4	6.29	6.28	356.90	0.00	585.44	0.011	0.01	6.215	A
5	165.41	165.31	199.89	0.00	1366.42	0.121	0.14	2.996	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	351.23	350.89	156.11	0.00	1361.16	0.258	0.35	3.563	A
2	71.57	71.42	409.19	0.00	556.16	0.129	0.15	7.425	A
3	321.50	319.95	124.25	0.00	594.20	0.541	1.14	13.050	B
4	7.71	7.69	436.51	0.00	554.64	0.014	0.01	6.581	A
5	202.59	202.43	244.41	0.00	1339.59	0.151	0.18	3.165	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	351.23	351.22	156.34	0.00	1361.02	0.258	0.35	3.564	A
2	71.57	71.56	409.57	0.00	556.01	0.129	0.15	7.430	A
3	321.50	321.43	124.41	0.00	594.14	0.541	1.16	13.192	B
4	7.71	7.71	438.14	0.00	554.01	0.014	0.01	6.589	A
5	202.59	202.59	245.48	0.00	1338.94	0.151	0.18	3.167	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	286.77	287.11	127.89	0.00	1378.14	0.208	0.26	3.302	A
2	58.43	58.57	334.81	0.00	585.68	0.100	0.11	6.830	A
3	262.50	263.99	101.75	0.00	601.99	0.436	0.79	10.699	B
4	6.29	6.31	359.43	0.00	584.46	0.011	0.01	6.226	A
5	165.41	165.57	201.55	0.00	1365.41	0.121	0.14	3.002	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	240.16	240.38	107.05	0.00	1390.68	0.173	0.21	3.131	A
2	48.94	49.03	280.31	0.00	607.31	0.081	0.09	6.448	A
3	219.83	220.69	85.18	0.00	607.73	0.362	0.58	9.323	A
4	5.27	5.28	300.58	0.00	607.23	0.009	0.01	5.982	A
5	138.52	138.63	168.51	0.00	1385.33	0.100	0.11	2.887	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]

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Filename: Southern Roundabout_100714.arc8
Path: P:\UKLPL1-TP\PROJECTS\Development - Former Greenhill Nursery Site\03 EXECUTION\Capacity Assessments\ARCADY
Report generation date: 10/07/2014 16:07:23

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Existing Layout - Base 2016							
Arm 1	0.76	7.74	0.43	A	0.66	7.29	0.40	A
Arm 2	0.20	2.90	0.17	A	0.39	3.35	0.28	A
Arm 3	0.30	4.40	0.23	A	0.32	4.84	0.24	A
Arm 4	0.56	5.17	0.36	A	0.56	5.21	0.36	A
	Existing Layout - Base 2019							
Arm 1	0.83	8.15	0.46	A	0.72	7.62	0.42	A
Arm 2	0.21	2.96	0.17	A	0.42	3.44	0.29	A
Arm 3	0.33	4.50	0.25	A	0.34	4.98	0.25	A
Arm 4	0.61	5.34	0.38	A	0.60	5.37	0.38	A
	Existing Layout - Base+Dev 2016							
Arm 1	0.83	8.07	0.46	A	0.68	7.37	0.41	A
Arm 2	0.20	2.93	0.17	A	0.40	3.37	0.28	A
Arm 3	0.31	4.43	0.24	A	0.33	4.90	0.25	A
Arm 4	0.57	5.19	0.36	A	0.57	5.27	0.37	A
	Existing Layout - Base+Dev 2019							
Arm 1	0.91	8.48	0.48	A	0.74	7.72	0.43	A
Arm 2	0.21	2.98	0.18	A	0.42	3.46	0.30	A
Arm 3	0.33	4.53	0.25	A	0.35	5.03	0.26	A
Arm 4	0.61	5.36	0.38	A	0.62	5.44	0.38	A

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

"D1 - Base 2016, AM " model duration: 08:15 - 09:45
"D2 - Base 2016, PM" model duration: 16:30 - 18:00
"D3 - Base+Dev 2016, AM" model duration: 08:15 - 09:45
"D4 - Base+Dev 2016, PM" model duration: 16:30 - 18:00
"D5 - Base 2019, AM" model duration: 08:15 - 09:45
"D6 - Base 2019, PM" model duration: 16:30 - 18:00
"D7 - Base+Dev 2019, AM" model duration: 08:15 - 09:45
"D8 - Base+Dev 2019, PM" model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 10/07/2014 16:07:19

File summary

Title	(untitled)
Location	
Site Number	
Date	20/06/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
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 - Base 2016, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2016, AM	Base 2016	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.30	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	322.00	100.000
2	ONE HOUR	✓	223.00	100.000
3	ONE HOUR	✓	227.00	100.000
4	ONE HOUR	✓	359.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	1.000	64.000	178.000	79.000
	2	42.000	1.000	35.000	145.000
	3	138.000	42.000	0.000	47.000
	4	77.000	240.000	40.000	2.000

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

		To			
		1	2	3	4
From	1	0.00	0.20	0.55	0.25
	2	0.19	0.00	0.16	0.65
	3	0.61	0.19	0.00	0.21
	4	0.21	0.67	0.11	0.01

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.43	7.74	0.76	A
2	0.17	2.90	0.20	A
3	0.23	4.40	0.30	A
4	0.36	5.17	0.56	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	242.42	240.90	243.56	0.00	877.02	0.276	0.38	5.645	A
2	167.89	167.40	224.50	0.00	1556.63	0.108	0.12	2.591	A
3	170.90	170.18	202.48	0.00	1116.34	0.153	0.18	3.803	A
4	270.27	269.03	167.97	0.00	1132.53	0.239	0.31	4.163	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	289.47	288.95	291.84	0.00	852.70	0.339	0.51	6.380	A
2	200.47	200.35	269.23	0.00	1526.28	0.131	0.15	2.714	A
3	204.07	203.88	242.49	0.00	1095.75	0.186	0.23	4.035	A
4	322.73	322.36	201.20	0.00	1115.38	0.289	0.40	4.537	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	354.53	353.56	357.28	0.00	819.75	0.432	0.75	7.706	A
2	245.53	245.34	329.46	0.00	1485.41	0.165	0.20	2.902	A
3	249.93	249.63	296.87	0.00	1067.78	0.234	0.30	4.399	A
4	395.27	394.63	246.35	0.00	1092.06	0.362	0.56	5.157	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	354.53	354.51	357.82	0.00	819.48	0.433	0.76	7.742	A
2	245.53	245.53	330.29	0.00	1484.85	0.165	0.20	2.904	A
3	249.93	249.93	297.27	0.00	1067.57	0.234	0.30	4.402	A
4	395.27	395.26	246.63	0.00	1091.92	0.362	0.56	5.167	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	289.47	290.42	292.71	0.00	852.27	0.340	0.52	6.417	A
2	200.47	200.66	270.53	0.00	1525.40	0.131	0.15	2.719	A
3	204.07	204.37	243.12	0.00	1095.43	0.186	0.23	4.041	A
4	322.73	323.35	201.65	0.00	1115.15	0.289	0.41	4.549	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	242.42	242.95	245.01	0.00	876.29	0.277	0.39	5.690	A
2	167.89	168.01	226.33	0.00	1555.39	0.108	0.12	2.596	A
3	170.90	171.09	203.51	0.00	1115.81	0.153	0.18	3.810	A
4	270.27	270.65	168.82	0.00	1132.10	0.239	0.32	4.182	A

Existing Layout - Base 2016, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2016, PM	Base 2016	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.08	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	299.00	100.000
2	ONE HOUR	✓	382.00	100.000
3	ONE HOUR	✓	215.00	100.000
4	ONE HOUR	✓	355.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	3.000	59.000	162.000	75.000
	2	68.000	1.000	46.000	267.000
	3	121.000	47.000	1.000	46.000
	4	85.000	224.000	35.000	11.000

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

		To			
		1	2	3	4
From	1	0.01	0.20	0.54	0.25
	2	0.18	0.00	0.12	0.70
	3	0.56	0.22	0.00	0.21
	4	0.24	0.63	0.10	0.03

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.40	7.29	0.66	A
2	0.28	3.35	0.39	A
3	0.24	4.84	0.32	A
4	0.36	5.21	0.56	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	225.10	223.74	239.06	0.00	879.29	0.256	0.34	5.480	A
2	287.59	286.69	214.81	0.00	1563.20	0.184	0.22	2.819	A
3	161.86	161.14	318.78	0.00	1056.51	0.153	0.18	4.017	A
4	267.26	266.03	180.70	0.00	1125.96	0.237	0.31	4.180	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	268.79	268.34	286.45	0.00	855.42	0.314	0.45	6.132	A
2	343.41	343.16	257.60	0.00	1534.17	0.224	0.29	3.022	A
3	193.28	193.08	381.72	0.00	1024.13	0.189	0.23	4.330	A
4	319.14	318.77	216.44	0.00	1107.51	0.288	0.40	4.562	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	329.21	328.39	350.67	0.00	823.08	0.400	0.66	7.265	A
2	420.59	420.18	315.25	0.00	1495.05	0.281	0.39	3.349	A
3	236.72	236.38	467.34	0.00	980.08	0.242	0.32	4.838	A
4	390.86	390.23	265.00	0.00	1082.44	0.361	0.56	5.196	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	329.21	329.19	351.22	0.00	822.80	0.400	0.66	7.292	A
2	420.59	420.59	315.98	0.00	1494.56	0.281	0.39	3.351	A
3	236.72	236.71	467.92	0.00	979.78	0.242	0.32	4.844	A
4	390.86	390.85	265.34	0.00	1082.26	0.361	0.56	5.206	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	268.79	269.59	287.32	0.00	854.98	0.314	0.46	6.159	A
2	343.41	343.81	258.73	0.00	1533.40	0.224	0.29	3.026	A
3	193.28	193.61	382.65	0.00	1023.65	0.189	0.23	4.338	A
4	319.14	319.76	217.00	0.00	1107.22	0.288	0.41	4.574	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	225.10	225.57	240.49	0.00	878.56	0.256	0.35	5.516	A
2	287.59	287.84	216.49	0.00	1562.06	0.184	0.23	2.827	A
3	161.86	162.07	320.32	0.00	1055.72	0.153	0.18	4.030	A
4	267.26	267.64	181.65	0.00	1125.47	0.237	0.31	4.198	A

Existing Layout - Base+Dev 2016, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2016, AM	Base+Dev 2016	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.44	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	339.00	100.000
2	ONE HOUR	✓	224.00	100.000
3	ONE HOUR	✓	229.00	100.000
4	ONE HOUR	✓	360.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	1.000	67.000	188.000	83.000
	2	43.000	1.000	35.000	145.000
	3	140.000	42.000	0.000	47.000
	4	78.000	240.000	40.000	2.000

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

		To			
		1	2	3	4
From	1	0.00	0.20	0.55	0.24
	2	0.19	0.00	0.16	0.65
	3	0.61	0.18	0.00	0.21
	4	0.22	0.67	0.11	0.01

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.46	8.07	0.83	A
2	0.17	2.93	0.20	A
3	0.24	4.43	0.31	A
4	0.36	5.19	0.57	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	255.22	253.59	243.56	0.00	877.02	0.291	0.41	5.759	A
2	168.64	168.15	234.94	0.00	1549.54	0.109	0.12	2.606	A
3	172.40	171.67	206.21	0.00	1114.42	0.155	0.18	3.817	A
4	271.03	269.77	170.22	0.00	1131.37	0.240	0.31	4.172	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	304.75	304.18	291.84	0.00	852.71	0.357	0.55	6.556	A
2	201.37	201.25	281.78	0.00	1517.77	0.133	0.15	2.734	A
3	205.87	205.67	246.97	0.00	1093.45	0.188	0.23	4.054	A
4	323.63	323.26	203.89	0.00	1113.99	0.291	0.41	4.550	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	373.25	372.16	357.27	0.00	819.75	0.455	0.82	8.022	A
2	246.63	246.44	344.77	0.00	1475.02	0.167	0.20	2.930	A
3	252.13	251.82	302.35	0.00	1064.96	0.237	0.31	4.427	A
4	396.37	395.73	249.64	0.00	1090.36	0.364	0.57	5.178	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	373.25	373.22	357.82	0.00	819.48	0.455	0.83	8.065	A
2	246.63	246.63	345.70	0.00	1474.39	0.167	0.20	2.931	A
3	252.13	252.13	302.77	0.00	1064.74	0.237	0.31	4.429	A
4	396.37	396.36	249.93	0.00	1090.22	0.364	0.57	5.187	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	304.75	305.82	292.71	0.00	852.26	0.358	0.56	6.602	A
2	201.37	201.56	283.21	0.00	1516.79	0.133	0.15	2.736	A
3	205.87	206.17	247.65	0.00	1093.10	0.188	0.23	4.060	A
4	323.63	324.26	204.35	0.00	1113.75	0.291	0.41	4.564	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	255.22	255.81	245.01	0.00	876.29	0.291	0.41	5.809	A
2	168.64	168.76	236.92	0.00	1548.20	0.109	0.12	2.611	A
3	172.40	172.60	207.29	0.00	1113.86	0.155	0.18	3.824	A
4	271.03	271.41	171.08	0.00	1130.93	0.240	0.32	4.189	A

Existing Layout - Base+Dev 2016, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2016, PM	Base+Dev 2016	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.13	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	304.00	100.000
2	ONE HOUR	✓	385.00	100.000
3	ONE HOUR	✓	220.00	100.000
4	ONE HOUR	✓	358.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	3.000	60.000	165.000	76.000
	2	71.000	1.000	46.000	267.000
	3	126.000	47.000	1.000	46.000
	4	88.000	224.000	35.000	11.000

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

		To			
		1	2	3	4
From	1	0.01	0.20	0.54	0.25
	2	0.18	0.00	0.12	0.69
	3	0.57	0.21	0.00	0.21
	4	0.25	0.63	0.10	0.03

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.41	7.37	0.68	A
2	0.28	3.37	0.40	A
3	0.25	4.90	0.33	A
4	0.37	5.27	0.57	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	228.87	227.47	239.05	0.00	879.29	0.260	0.35	5.512	A
2	289.85	288.94	217.79	0.00	1561.18	0.186	0.23	2.828	A
3	165.63	164.89	321.77	0.00	1054.97	0.157	0.19	4.041	A
4	269.52	268.27	186.69	0.00	1122.87	0.240	0.31	4.206	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	273.29	272.83	286.44	0.00	855.42	0.319	0.46	6.173	A
2	346.11	345.85	261.18	0.00	1531.74	0.226	0.29	3.035	A
3	197.78	197.56	385.31	0.00	1022.28	0.193	0.24	4.364	A
4	321.83	321.46	223.63	0.00	1103.80	0.292	0.41	4.599	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	334.71	333.86	350.66	0.00	823.09	0.407	0.68	7.347	A
2	423.89	423.48	319.63	0.00	1492.08	0.284	0.39	3.366	A
3	242.22	241.87	471.73	0.00	977.82	0.248	0.33	4.889	A
4	394.17	393.51	273.79	0.00	1077.90	0.366	0.57	5.256	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	334.71	334.69	351.22	0.00	822.80	0.407	0.68	7.374	A
2	423.89	423.89	320.38	0.00	1491.57	0.284	0.40	3.370	A
3	242.22	242.22	472.33	0.00	977.51	0.248	0.33	4.895	A
4	394.17	394.15	274.15	0.00	1077.71	0.366	0.57	5.266	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	273.29	274.12	287.33	0.00	854.98	0.320	0.47	6.208	A
2	346.11	346.52	262.35	0.00	1530.95	0.226	0.29	3.042	A
3	197.78	198.12	386.26	0.00	1021.79	0.194	0.24	4.373	A
4	321.83	322.47	224.21	0.00	1103.50	0.292	0.41	4.612	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	228.87	229.34	240.50	0.00	878.56	0.261	0.36	5.548	A
2	289.85	290.11	219.51	0.00	1560.01	0.186	0.23	2.837	A
3	165.63	165.84	323.34	0.00	1054.16	0.157	0.19	4.053	A
4	269.52	269.91	187.68	0.00	1122.36	0.240	0.32	4.226	A

Existing Layout - Base 2019, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2019, AM	Base 2019	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.50	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	336.00	100.000
2	ONE HOUR	✓	234.00	100.000
3	ONE HOUR	✓	237.00	100.000
4	ONE HOUR	✓	374.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	1.000	67.000	186.000	82.000
	2	44.000	1.000	37.000	152.000
	3	144.000	44.000	0.000	49.000
	4	80.000	250.000	42.000	2.000

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

		To			
		1	2	3	4
From	1	0.00	0.20	0.55	0.24
	2	0.19	0.00	0.16	0.65
	3	0.61	0.19	0.00	0.21
	4	0.21	0.67	0.11	0.01

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.46	8.15	0.83	A
2	0.17	2.96	0.21	A
3	0.25	4.50	0.33	A
4	0.38	5.34	0.61	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	252.96	251.34	254.03	0.00	871.74	0.290	0.41	5.787	A
2	176.17	175.66	234.19	0.00	1550.05	0.114	0.13	2.619	A
3	178.43	177.67	211.47	0.00	1111.71	0.161	0.19	3.851	A
4	281.57	280.25	175.46	0.00	1128.67	0.249	0.33	4.237	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	302.06	301.48	304.40	0.00	846.38	0.357	0.55	6.600	A
2	210.36	210.23	280.87	0.00	1518.38	0.139	0.16	2.751	A
3	213.06	212.85	253.26	0.00	1090.21	0.195	0.24	4.102	A
4	336.22	335.82	210.17	0.00	1110.74	0.303	0.43	4.643	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	369.94	368.84	372.64	0.00	812.02	0.456	0.82	8.103	A
2	257.64	257.44	343.66	0.00	1475.78	0.175	0.21	2.954	A
3	260.94	260.61	310.04	0.00	1061.00	0.246	0.32	4.495	A
4	411.78	411.09	257.34	0.00	1086.39	0.379	0.60	5.325	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	369.94	369.92	373.24	0.00	811.71	0.456	0.83	8.147	A
2	257.64	257.64	344.60	0.00	1475.14	0.175	0.21	2.956	A
3	260.94	260.94	310.48	0.00	1060.78	0.246	0.33	4.500	A
4	411.78	411.77	257.63	0.00	1086.24	0.379	0.61	5.337	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	302.06	303.13	305.35	0.00	845.90	0.357	0.56	6.647	A
2	210.36	210.56	282.32	0.00	1517.40	0.139	0.16	2.754	A
3	213.06	213.38	253.95	0.00	1089.86	0.195	0.24	4.108	A
4	336.22	336.90	210.66	0.00	1110.49	0.303	0.44	4.659	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	252.96	253.55	255.58	0.00	870.97	0.290	0.41	5.835	A
2	176.17	176.30	236.17	0.00	1548.71	0.114	0.13	2.622	A
3	178.43	178.63	212.56	0.00	1111.15	0.161	0.19	3.862	A
4	281.57	281.98	176.36	0.00	1128.20	0.250	0.33	4.257	A

Existing Layout - Base 2019, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base 2019, PM	Base 2019	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.25	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	312.00	100.000
2	ONE HOUR	✓	398.00	100.000
3	ONE HOUR	✓	224.00	100.000
4	ONE HOUR	✓	369.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	3.000	62.000	169.000	78.000
	2	71.000	1.000	48.000	278.000
	3	126.000	49.000	1.000	48.000
	4	88.000	233.000	36.000	12.000

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

		To			
		1	2	3	4
From	1	0.01	0.20	0.54	0.25
	2	0.18	0.00	0.12	0.70
	3	0.56	0.22	0.00	0.21
	4	0.24	0.63	0.10	0.03

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.42	7.62	0.72	A
2	0.29	3.44	0.42	A
3	0.25	4.98	0.34	A
4	0.38	5.37	0.60	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	234.89	233.43	248.78	0.00	874.39	0.269	0.36	5.604	A
2	299.64	298.69	223.76	0.00	1557.13	0.192	0.24	2.859	A
3	168.64	167.88	332.26	0.00	1049.57	0.161	0.19	4.079	A
4	277.80	276.49	188.18	0.00	1122.10	0.248	0.33	4.251	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	280.48	279.99	298.11	0.00	849.55	0.330	0.49	6.315	A
2	357.79	357.52	268.35	0.00	1526.88	0.234	0.30	3.078	A
3	201.37	201.15	397.87	0.00	1015.82	0.198	0.25	4.418	A
4	331.72	331.32	225.42	0.00	1102.87	0.301	0.43	4.664	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	343.52	342.60	364.93	0.00	815.90	0.421	0.72	7.590	A
2	438.21	437.76	328.38	0.00	1486.15	0.295	0.42	3.431	A
3	246.63	246.26	487.10	0.00	969.91	0.254	0.34	4.972	A
4	406.28	405.58	275.98	0.00	1076.77	0.377	0.60	5.358	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	343.52	343.50	365.53	0.00	815.60	0.421	0.72	7.624	A
2	438.21	438.20	329.19	0.00	1485.60	0.295	0.42	3.436	A
3	246.63	246.62	487.74	0.00	969.58	0.254	0.34	4.979	A
4	406.28	406.27	276.35	0.00	1076.57	0.377	0.60	5.370	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	280.48	281.38	299.06	0.00	849.07	0.330	0.50	6.353	A
2	357.79	358.23	269.60	0.00	1526.02	0.234	0.31	3.083	A
3	201.37	201.74	398.89	0.00	1015.29	0.198	0.25	4.428	A
4	331.72	332.40	226.02	0.00	1102.56	0.301	0.43	4.679	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	234.89	235.40	250.31	0.00	873.62	0.269	0.37	5.646	A
2	299.64	299.91	225.57	0.00	1555.90	0.193	0.24	2.868	A
3	168.64	168.86	333.90	0.00	1048.73	0.161	0.19	4.092	A
4	277.80	278.21	189.20	0.00	1121.57	0.248	0.33	4.270	A

Existing Layout - Base+Dev 2019, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2019, AM	Base+Dev 2019	AM		ONE HOUR	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.64	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	352.00	100.000
2	ONE HOUR	✓	235.00	100.000
3	ONE HOUR	✓	239.00	100.000
4	ONE HOUR	✓	375.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	1.000	70.000	195.000	86.000
	2	45.000	1.000	37.000	152.000
	3	146.000	44.000	0.000	49.000
	4	81.000	250.000	42.000	2.000

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

		To			
		1	2	3	4
From	1	0.00	0.20	0.55	0.24
	2	0.19	0.00	0.16	0.65
	3	0.61	0.18	0.00	0.21
	4	0.22	0.67	0.11	0.01

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.48	8.48	0.91	A
2	0.18	2.98	0.21	A
3	0.25	4.53	0.33	A
4	0.38	5.36	0.61	A

Main Results for each time segment

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	265.00	263.27	254.03	0.00	871.74	0.304	0.43	5.900	A
2	176.92	176.40	243.89	0.00	1543.47	0.115	0.13	2.633	A
3	179.93	179.16	215.20	0.00	1109.79	0.162	0.19	3.865	A
4	282.32	280.99	177.71	0.00	1127.51	0.250	0.33	4.253	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	316.44	315.81	304.40	0.00	846.38	0.374	0.59	6.776	A
2	211.26	211.13	292.51	0.00	1510.48	0.140	0.16	2.770	A
3	214.86	214.65	257.74	0.00	1087.91	0.197	0.24	4.121	A
4	337.12	336.71	212.86	0.00	1109.35	0.304	0.43	4.657	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	387.56	386.33	372.63	0.00	812.02	0.477	0.90	8.433	A
2	258.74	258.53	357.87	0.00	1466.14	0.176	0.21	2.980	A
3	263.14	262.81	315.51	0.00	1058.19	0.249	0.33	4.524	A
4	412.88	412.18	260.63	0.00	1084.69	0.381	0.61	5.347	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	387.56	387.53	373.24	0.00	811.71	0.477	0.91	8.485	A
2	258.74	258.74	358.91	0.00	1465.43	0.177	0.21	2.982	A
3	263.14	263.14	315.98	0.00	1057.94	0.249	0.33	4.529	A
4	412.88	412.87	260.94	0.00	1084.53	0.381	0.61	5.359	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	316.44	317.64	305.35	0.00	845.90	0.374	0.60	6.829	A
2	211.26	211.46	294.11	0.00	1509.40	0.140	0.16	2.773	A
3	214.86	215.19	258.48	0.00	1087.53	0.198	0.25	4.128	A
4	337.12	337.80	213.36	0.00	1109.10	0.304	0.44	4.671	A

Main results: (09:30-09:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	265.00	265.66	255.58	0.00	870.96	0.304	0.44	5.955	A
2	176.92	177.05	246.00	0.00	1542.04	0.115	0.13	2.637	A
3	179.93	180.14	216.34	0.00	1109.20	0.162	0.19	3.877	A
4	282.32	282.73	178.62	0.00	1127.03	0.251	0.34	4.267	A

Existing Layout - Base+Dev 2019, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY			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)	Single Time Segment Only	Locked
Base+Dev 2019, PM	Base+Dev 2019	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
South	Southern Roundabout	Roundabout	1,2,3,4			5.31	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Greenhill Road	
2	2	Long Lane	
3	3	Whitehedge Road	
4	4	Brodie Avenue	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.10	4.20	1.60	10.00	27.00	28.00	
2	3.80	7.30	10.00	31.00	16.00	25.00	
3	3.90	7.00	4.00	6.00	23.00	43.00	
4	4.50	6.30	1.00	6.00	20.00	42.00	

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)	0.504	999.673
2		(calculated)	(calculated)	0.679	1708.950
3		(calculated)	(calculated)	0.514	1220.502
4		(calculated)	(calculated)	0.516	1219.264

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	✓	317.00	100.000
2	ONE HOUR	✓	401.00	100.000
3	ONE HOUR	✓	229.00	100.000
4	ONE HOUR	✓	373.00	100.000

Turning Proportions

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

		To			
		1	2	3	4
From	1	3.000	63.000	172.000	79.000
	2	74.000	1.000	48.000	278.000
	3	131.000	49.000	1.000	48.000
	4	92.000	233.000	36.000	12.000

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

		To			
		1	2	3	4
From	1	0.01	0.20	0.54	0.25
	2	0.18	0.00	0.12	0.69
	3	0.57	0.21	0.00	0.21
	4	0.25	0.62	0.10	0.03

Vehicle Mix

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

		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	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction South (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	0.0
	4	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.43	7.72	0.74	A
2	0.30	3.46	0.42	A
3	0.26	5.03	0.35	A
4	0.38	5.44	0.62	A

Main Results for each time segment

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	238.65	237.17	248.77	0.00	874.39	0.273	0.37	5.637	A
2	301.89	300.93	226.75	0.00	1555.10	0.194	0.24	2.869	A
3	172.40	171.62	335.25	0.00	1048.03	0.165	0.20	4.104	A
4	280.81	279.48	194.18	0.00	1119.00	0.251	0.33	4.281	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	284.98	284.47	298.10	0.00	849.55	0.335	0.50	6.365	A
2	360.49	360.22	271.93	0.00	1524.45	0.236	0.31	3.092	A
3	205.87	205.64	401.46	0.00	1013.97	0.203	0.25	4.452	A
4	335.32	334.91	232.60	0.00	1099.16	0.305	0.44	4.708	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	349.02	348.07	364.91	0.00	815.91	0.428	0.74	7.678	A
2	441.51	441.06	332.75	0.00	1483.18	0.298	0.42	3.452	A
3	252.13	251.75	491.49	0.00	967.66	0.261	0.35	5.026	A
4	410.68	409.96	284.77	0.00	1072.23	0.383	0.61	5.430	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	349.02	349.00	365.53	0.00	815.60	0.428	0.74	7.715	A
2	441.51	441.50	333.59	0.00	1482.61	0.298	0.42	3.457	A
3	252.13	252.13	492.15	0.00	967.32	0.261	0.35	5.033	A
4	410.68	410.67	285.16	0.00	1072.02	0.383	0.62	5.442	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	284.98	285.90	299.07	0.00	849.06	0.336	0.51	6.404	A
2	360.49	360.94	273.23	0.00	1523.57	0.237	0.31	3.099	A
3	205.87	206.25	402.50	0.00	1013.44	0.203	0.26	4.461	A
4	335.32	336.02	233.23	0.00	1098.84	0.305	0.44	4.725	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	238.65	239.18	250.32	0.00	873.62	0.273	0.38	5.678	A
2	301.89	302.17	228.59	0.00	1553.85	0.194	0.24	2.876	A
3	172.40	172.64	336.92	0.00	1047.17	0.165	0.20	4.118	A
4	280.81	281.23	195.23	0.00	1118.46	0.251	0.34	4.301	A