

Technical Note: Update to Highway Response Note 1 - Sensitivity Testing

25 August 2022
Version 1.0
Issue



1 Introduction

Fore Consulting Limited (Fore) has been commissioned by Keyland Developments to assist the preparation of an outline planning application (with all matters reserved) for employment development on land to the south of the former North Bierley Waste Water Treatment Works (WWTW), Bradford, in respect of transport and highways matters. This included the preparation of a Transport Assessment¹ submitted as part of a planning application to Kirklees Council (KC) and Bradford Metropolitan District Council (BMDC)².

In May 2022, Fore prepared a Technical Response Note³ that provided a response to comments received from KC Highways Development Management (HDM) in relation to the Transport Assessment and Framework Travel Plan, submitted as part of the outline planning application, dated 8 February 2022.

The purpose of this note is to provide an updated response to further comments received in relation to the Technical Response Note from a HDM Consultation Response to the planning application, dated 26 July 2022, and discussion at a meeting between representatives of the applicant and KC as planning and highway authority on 27 July 2022.

2 Transport Assessment

2.1 Trip Generation

HDM Comment:

HDM have re-interrogated the TRICS database based on the following search parameters:

- *Search Option 1 - Same site selection as in the Technical Note, but with 2018 survey at Slough - SO-02-G-02;*

¹ *Transport Assessment: North Bierley Phase 2*, Fore Consulting Limited, 28 October 2021.

² Planning application reference: 2021/60/94208/E

³ *Technical Note: Response to Kirklees Council Highways*, Fore Consulting Limited, 12 May 2022.

- *Search Option 2 - Same site selection parameters as in the Technical Note, but with survey at Slough - SO-02-G-02 and date range extended to last 20 years of data.*

As can be seen from the above, the average trip rates are reasonably consistent using either Search Option 1 or 2 and are higher than the trip rates utilised in the Technical Note. Based on the above 'Search Option 2' trip rates, this would represent an underestimate of 7 additional two-way trips in the AM and PM peaks respectively.

In light of the above, the proposed 'Parcel Distribution' trip rates used in the Technical Note report are considered to be too low and revised assessments should be undertaken using the 'Search Option 2' trip rates.

Fore Response:

As set out in the previous Technical Response Note, sensitivity testing has been undertaken assuming that a proportion of the development is occupied for a parcel distribution use. For the purposes of this sensitivity test, and to be consistent with the previous assessment, 6,000 sqm (50%) within the site is assumed to be development for parcel distribution use.

Sensitivity testing has been undertaken using HDM's 'Search Option 2' parcel distribution trip rates. The vehicle trip rates are summarised in Table 1 for the weekday AM and PM peak hours. The resulting TRICS output is presented in full at Appendix A.

Table 1: Vehicle Trip Rates

Time Period	Parcel Distribution Use			Industrial Use		
	Arr.	Dep.	Total	Arr.	Dep.	Total
	Vehicle Trip Rates (Trips per 100 sqm)					
Weekday AM Peak Hour	0.378	0.374	0.752	0.525	0.099	0.624
Weekday PM Peak Hour	0.457	0.456	0.913	0.059	0.433	0.492
	HGV Trip Rates (Trips per 100 sqm)					
Weekday AM Peak Hour	0.022	0.096	0.118	0.029	0.025	0.054
Weekday PM Peak Hour	0.066	0.025	0.091	0.011	0.013	0.024

The resulting vehicle trip generation associated with the sensitivity test scenario is shown in Table 2. Comparison is made to the sensitivity test as assessed in the previous Technical Response Note.

Table 2: Vehicle Trip Generation - Sensitivity Test Scenario

Time Period	Vehicle Trip Generation			HGV Trip Generation		
	Arr.	Dep.	Total	Arr.	Dep.	Total
Parcel Distribution Use (6,000 sqm)						
Weekday AM Peak Hour	23	23	46	1	6	7
Weekday PM Peak Hour	28	28	55	4	2	6
Industrial Use (6,077 sqm)						
Weekday AM Peak Hour	32	6	38	2	2	3
Weekday PM Peak Hour	4	26	30	1	1	1
Sensitivity Test - Total Development (12,077 sqm)						
Weekday AM Peak Hour	55	29	84	3	7	10
Weekday PM Peak Hour	31	54	85	5	2	7
100% Industrial Use (12,077 sqm)						
Weekday AM Peak Hour	63	12	75	4	3	7
Weekday PM Peak Hour	7	52	59	1	2	3
Comparison - Previous Sensitivity Test (12,077 sqm)						
Weekday AM Peak Hour	51	25	76	4	6	10
Weekday PM Peak Hour	23	55	78	4	5	9

The assessment demonstrates the following:

- As outlined in the previous Technical Response Note, the sensitivity test scenario demonstrates that a parcel distribution use on the site would generate a relatively small number of additional vehicle movements compared to the scenario if the site is developed fully for industrial use. An increase in 9 and 26 additional vehicle movements in the AM and PM peak hours, respectively is not considered to be significant in the context of the operation of the wider network.
- Compared to the unapproved trip rates, HDM's 'Search Option 2' parcel distribution trip rates increase the number of vehicle trips associated with the sensitivity test scenario by 8 and 7 in the AM and PM peak hours, respectively. Such a change in flows would be indiscernible in practice. Notwithstanding this, it is accepted that the 'Option 2' trip rates will be used for assessment purposes.

HDM Comment:

Based on the recent changes to the development floor area in the 'Northern site' (with Delegated approval - subject to S106), the traffic generations for the 'Northern site' have been recalculated.

HDM request that the above flow data is utilised within the revised junction capacity assessments that are required.

Fore Response:

Within the Transport Assessment that was submitted as part of the outline planning application, the transport impacts of the Phase 1 'Northern site' were considered within the 'Total Committed Development Traffic Flows' and resulting 'Do Minimum' and 'With Development' traffic flows. Peak hour traffic flows associated with the Phase 1 site were derived from Appendix E within the Transport Assessment submitted as part of the approved application.

Sensitivity testing has been undertaken using the updated trip generation figures as presented in HDM's consultation response. Therefore, the 'Total Committed Development Traffic Flows', 'Do Minimum' and 'With Development' traffic flow diagrams have been revised to accommodate these changes, and within the junction capacity models as set out below.

The resulting vehicle trip generation is shown in Table 3, with a comparison to what was assumed within the Transport Assessment as derived from the approved planning application.

Table 3: Vehicle Trip Generation - Phase 1 Site

Link	Two-way Vehicle Trip Generation		Two-way HGV Trip Generation	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Phase 1 Transport Assessment			
Bradford Road (north)	38	31	4	2
Bradford Road (south)	138	111	13	6
Mill Carr Hill Road	6	5	0	0
Cliff Hollins Lane	4	4	0	0
	HDM Consultation Response			
Bradford Road (north)	23	20	0	0
Bradford Road (south)	125	102	23	13
Mill Carr Hill Road	17	15	0	0
Cliff Hollins Lane	12	11	0	0
	Difference			
Bradford Road (north)	-15	-11	-4	-2
Bradford Road (south)	-13	-9	+10	+7
Mill Carr Hill Road	+11	+10	0	0
Cliff Hollins Lane	+8	+7	0	0

The assessment shows that compared to what was previously assessed, the vehicle traffic flows associated with the Phase 1 'Northern site' would increase on Mill Carr Hill Road and Cliff Hollins Lane, and reduce on Bradford Road, when applying HDM's trip generation figures. HGV traffic flows would increase on Bradford Road south towards M62 Junction 26, and reduce on Bradford Road north. However, the changes in traffic flows overall are not considered to be significant in operational terms.

2.2 Base Traffic Flows and Assessment Periods

HDM Comment:

In the previous consultation response, HDM queried the 2021 base traffic count data that had been utilised within the Transport Assessment, as the traffic flow diagrams and raw traffic data were illegible. This information was not supplied with the Technical Note but has subsequently been provided to HDM directly by the transport consultant. Following a review by HDM, a number of relatively minor errors were identified with the

base traffic data analysis undertaken by the transport consultant. However, these errors have since been rectified, with revised data and junction modelling provided.

Fore Response:

As explained in the HDM comment above, errors in the base traffic flow diagrams at the Mill Carr Hill Road / Cliff Hollins Lane and Cliff Hollins Lane / Site Access junctions were identified and have been addressed, with revised flow diagrams and junction modelling provided to HDM. It is understood that the revised information is accepted. The junction capacity assessments presented below includes the revised base flow data.

2.3 Junction Capacity Assessments

HDM Comment:

Revised junction modelling is required incorporating geometric and modelling parameters.

Fore Response:

The junction models have been reviewed in response to the points set out in the consultation response, as follows:

Cliff Hollins Lane / Site Access Junction

- Updated origin-destination flows from revised base, phase 1 and sensitivity test scenario development traffic.
- Altered to s278 works layout with Cliff Hollins Lane east forming the minor arm.

Mill Carr Hill Road / Cliff Hollins Lane Junction

- Updated origin-destination flows from revised base, phase 1 and sensitivity test scenario development traffic.
- Altered flare length on Cliff Hollins Lane to 2 PCUs.
- Altered major road width on Mill Carr Hill Road to 7.3m.

Bradford Road / Mill Carr Hill Road Junction

- Updated origin-destination flows from phase 1 and sensitivity test scenario development traffic.

- Altered flare length on Bradford Road south to 1 PCU.
- Altered minor road width on Mill Carr Hill Road to 7.0m.
- Altered visibility to the right on Mill Carr Hill Road to 30m.

Cliff Hollins Lane / Site Access Junction

The model results for the Cliff Hollins Lane / Site Access junction are summarised in Table 4, and presented in full at Appendix B.

Table 4: Cliff Hollins Lane / Site Access Junction - Highway Capacity Assessment

Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	RFC	Q	RFC	Q
2021 Base				
Cliff Hollins Lane east (LT + RT)	0.06	0.1	0.14	0.2
Site Access (RT)	0.00	0.0	0.00	0.0
2031 Do Minimum				
Cliff Hollins Lane east (LT + RT)	0.09	0.1	0.17	0.2
Site Access (RT)	0.00	0.0	0.02	0.0
2031 With Development - 100% Industrial Use				
Cliff Hollins Lane east (LT + RT)	0.10	0.1	0.18	0.2
Site Access (RT)	0.00	0.0	0.02	0.0
2031 With Development - 100% Warehousing Use				
Cliff Hollins Lane east (LT + RT)	0.09	0.1	0.17	0.2
Site Access (RT)	0.00	0.0	0.02	0.0
2031 With Development - 50% Industrial Use / 50% Warehousing Use				
Cliff Hollins Lane east (LT + RT)	0.10	0.1	0.18	0.2
Site Access (RT)	0.01	0.0	0.02	0.0

The assessment demonstrates that the access junction will operate satisfactorily during the weekday AM and PM peak hours in all three 'With Development' scenarios. The maximum RFC value is significantly below the normal threshold value of 0.85 on all approaches, with maximum average queues of less than 1 PCU modelled.

Mill Carr Hill Road / Cliff Hollins Lane Junction

The model results for the Mill Carr Hill Road / Cliff Hollins Lane junction are summarised in Table 5, and presented in full at Appendix C.

Table 5: Mill Carr Hill Road / Cliff Hollins Lane Junction - Highway Capacity Assessment

Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	RFC	Q	RFC	Q
2021 Base				
Cliff Hollins Lane (LT)	0.04	0.0	0.09	0.1
Cliff Hollins Lane (RT)	0.01	0.0	0.1	0.0
Mill Carr Hill Road west (RT)	0.12	0.2	0.11	0.1
2031 Do Minimum				
Cliff Hollins Lane (LT)	0.11	0.1	0.27	0.4
Cliff Hollins Lane (RT)	0.02	0.0	0.04	0.0
Mill Carr Hill Road west (RT)	0.43	1.0	0.18	0.3
2031 With Development - 100% Industrial Use				
Cliff Hollins Lane (LT)	0.13	0.2	0.35	0.6
Cliff Hollins Lane (RT)	0.02	0.0	0.05	0.1
Mill Carr Hill Road west (RT)	0.58	1.8	0.20	0.3
2031 With Development - 100% Warehousing Use				
Cliff Hollins Lane (LT)	0.12	0.2	0.30	0.5
Cliff Hollins Lane (RT)	0.02	0.0	0.05	0.0
Mill Carr Hill Road west (RT)	0.48	1.2	0.20	0.3
2031 With Development - 50% Industrial Use / 50% Warehousing Use				
Cliff Hollins Lane (LT)	0.16	0.2	0.36	0.6
Cliff Hollins Lane (RT)	0.03	0.0	0.05	0.1
Mill Carr Hill Road west (RT)	0.56	1.6	0.25	0.4

The assessment demonstrates that the Mill Carr Hill Road / Cliff Hollins Lane junction will operate satisfactorily during the weekday AM and PM peak hours in all three 'With Development' scenarios. The maximum RFC value is significantly below the normal threshold value of 0.85 on all approaches, with maximum average queues of just over 1 PCU modelled.

Bradford Road / Mill Carr Hill Road Junction

The model results for the Bradford Road / Mill Carr Hill Road junction are summarised in Table 6, and presented in full at Appendix D.

Table 6: Bradford Road / Mill Carr Hill Road Junction - Highway Capacity Assessment

Approach	Weekday AM Peak Hour		Weekday PM Peak Hour	
	RFC	Q	RFC	Q
2021 Base				
Mill Carr Hill Road (LT)	0.11	0.1	0.19	0.2
Mill Carr Hill Road (RT)	0.22	0.3	0.33	0.5
Bradford Road south (RT)	0.21	0.3	0.12	0.2
2031 Do Minimum				
Mill Carr Hill Road (LT)	0.20	0.3	0.40	0.7
Mill Carr Hill Road (RT)	0.34	0.5	0.51	1.0
Bradford Road south (RT)	0.48	1.5	0.18	0.3
2031 With Development - 100% Industrial Use				
Mill Carr Hill Road (LT)	0.22	0.3	0.50	1.0
Mill Carr Hill Road (RT)	0.39	0.6	0.57	1.3
Bradford Road south (RT)	0.59	1.8	0.20	0.4
2031 With Development - 100% Warehousing Use				
Mill Carr Hill Road (LT)	0.21	0.3	0.44	0.8
Mill Carr Hill Road (RT)	0.36	0.6	0.53	1.1
Bradford Road south (RT)	0.52	1.8	0.20	0.4
2031 With Development - 50% Industrial Use / 50% Parcel Distribution Use				
Mill Carr Hill Road (LT)	0.26	0.4	0.51	1.0
Mill Carr Hill Road (RT)	0.41	0.7	0.59	1.4
Bradford Road south (RT)	0.58	2.3	0.24	0.5

The assessment demonstrates that the Mill Carr Hill Road / Cliff Hollins Lane junction will operate satisfactorily during the weekday AM and PM peak hours in all three 'With Development' scenarios. The RFC is predicted to remain below the normal practical capacity threshold on all approaches. Modelled queues would be satisfactorily accommodated, without impacts on the wider network.

Summary of Assessment of Local Network Junctions

Notwithstanding the various changes to the modelled traffic flows, the changes in traffic flows associated with the development (including a possible parcel distribution use on the site) are considered to be safely and efficiently accommodated at the key junctions on the local network, and as such no mitigation in terms of physical changes to the layout of the junctions is considered necessary.

M62 Junction 26

As highlighted above, the change in traffic flows associated with applying HDM's 'Search Option 2' parcel distribution trip rates and Phase 1 trip generation figures would not materially affect the operation of the wider network, and would be immaterial in the context of the operation of Junction 26 as assessed for the purposes of the planning application to date, as discussed and agreed with National Highways.

Appendix A

TRICS Output

Calculation Reference: AUDIT-723001-220720-0753

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : G - PARCEL DISTRIBUTION CENTRES
 TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	BN BARNET	1 days
	HO HOUNSLOW	3 days
02	SOUTH EAST	
	SO SLOUGH	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	RI EAST RIDING OF YORKSHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
10	WALES	
	CF CARDIFF	1 days
	WR WREXHAM	1 days
14	LEINSTER	
	WT WESTMEATH	1 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days
	DE DERRY	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 763 to 22679 (units: sqm)
 Range Selected by User: 763 to 24154 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/01 to 11/05/21

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

Selected survey days:

Monday	2 days
Tuesday	3 days
Wednesday	4 days
Thursday	1 days
Friday	6 days

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

Selected survey types:

Manual count	16 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	9
Free Standing (PPS6 Out of Town)	3

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:

Industrial Zone	10
Commercial Zone	3
Development Zone	1
Built-Up Zone	1
Out of Town	1

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

Secondary Filtering selection:

Use Class:

Not Known	1 days
B8	15 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@.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	7 days
10,001 to 15,000	1 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:

5,001 to 25,000	3 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
125,001 to 250,000	2 days
250,001 to 500,000	4 days
500,001 or More	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	9 days
1.6 to 2.0	1 days

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

Travel Plan:

Not Known	1 days
Yes	2 days
No	13 days

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

PTAL Rating:

No PTAL Present	14 days
1b Very poor	1 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1	AN-02-G-01	YODEL		ANTRIM
		CARRICKFERGUS CARRICKFERGUS IND. E. Edge of Town Industrial Zone Total Gross floor area: 16000 sqm <i>Survey date: FRIDAY 11/10/13</i>		<i>Survey Type: MANUAL</i>
2	BN-02-G-01	PARCELFORCE GERON WAY DOLLIS HILL		BARNET
		Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 15250 sqm <i>Survey date: FRIDAY 30/04/04</i>		<i>Survey Type: MANUAL</i>
3	CF-02-G-01	R. MAIL SORTING OFFICE PENARTH ROAD CARDIFF GRANGETOWN Edge of Town Built-Up Zone Total Gross floor area: 22679 sqm <i>Survey date: THURSDAY 17/10/02</i>		CARDIFF
4	DE-02-G-01	TARGET EXPRESS KEANS HILL ROAD NEAR LONDONDERRY EGLINTON Free Standing (PPS6 Out of Town) Industrial Zone Total Gross floor area: 1500 sqm <i>Survey date: FRIDAY 22/06/12</i>		DERRY
5	HO-02-G-01	TNT SPITFIRE WAY NORWOOD GREEN HESTON Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 5675 sqm <i>Survey date: TUESDAY 25/03/03</i>		HOUNSLOW
6	HO-02-G-02	UPS PARCEL DISTRIB.. CENTRAL WAY FELTHAM		HOUNSLOW
		Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 3300 sqm <i>Survey date: WEDNESDAY 16/06/10</i>		<i>Survey Type: MANUAL</i>
7	HO-02-G-06	DPD & DPD LOCAL FOREST ROAD FELTHAM		HOUNSLOW
		Suburban Area (PPS6 Out of Centre) Commercial Zone Total Gross floor area: 3862 sqm <i>Survey date: FRIDAY 26/04/19</i>		<i>Survey Type: MANUAL</i>
8	LN-02-G-01	PARCELFORCE WORLDWIDE WHISBY WAY LINCOLN BIRCHWOOD Edge of Town Industrial Zone Total Gross floor area: 1496 sqm <i>Survey date: FRIDAY 28/06/19</i>		LINCOLNSHIRE

LIST OF SITES relevant to selection parameters (Cont.)

9	NT-02-G-02 MILLENIUM WAY NOTTINGHAM PHOENIX CENTRE Edge of Town Commercial Zone Total Gross floor area: <i>Survey date: MONDAY</i>	CITY LINK 3000 sqm 17/06/13	NOTTINGHAMSHIRE <i>Survey Type: MANUAL</i>
10	RI-02-G-01 YORK ROAD NEAR POCKLINGTON ALLERTHORPE BUS. PARK Free Standing (PPS6 Out of Town) Commercial Zone Total Gross floor area: <i>Survey date: WEDNESDAY</i>	UK MAIL 2700 sqm 19/12/12	EAST RIDING OF YORKSHIRE <i>Survey Type: MANUAL</i>
11	SF-02-G-01 CENTRAL AVENUE IPSWICH NACTON HEATH Edge of Town Industrial Zone Total Gross floor area: <i>Survey date: TUESDAY</i>	PARCELFORCE 2400 sqm 29/07/03	SUFFOLK <i>Survey Type: MANUAL</i>
12	SO-02-G-01 HORTON ROAD SLOUGH COLNBROOK Edge of Town Development Zone Total Gross floor area: <i>Survey date: TUESDAY</i>	DHL 15583 sqm 06/03/18	SLOUGH <i>Survey Type: MANUAL</i>
13	TW-02-G-01 DUKESWAY COURT GATESHEAD TEAM VALLEY Edge of Town Industrial Zone Total Gross floor area: <i>Survey date: MONDAY</i>	SECURICOR OMEGA 3000 sqm 23/06/03	TYNE & WEAR <i>Survey Type: MANUAL</i>
14	WK-02-G-01 LONDON ROAD NEAR RUGBY DUNSMORE HEATH Free Standing (PPS6 Out of Town) Out of Town Total Gross floor area: <i>Survey date: WEDNESDAY</i>	INITIAL CITY LINK 763 sqm 01/02/06	WARWICKSHIRE <i>Survey Type: MANUAL</i>
15	WR-02-G-01 PARK FACTORY ROAD SANDYCROFT DEESIDE Edge of Town Industrial Zone Total Gross floor area: <i>Survey date: WEDNESDAY</i>	PARCELFORCE 2000 sqm 24/09/03	WREXHAM <i>Survey Type: MANUAL</i>
16	WT-02-G-01 DUBLIN ROAD ATHLONE Edge of Town Industrial Zone Total Gross floor area: <i>Survey date: FRIDAY</i>	DISTRIBUTION CENTRE 6482 sqm 30/11/12	WESTMEATH <i>Survey Type: MANUAL</i>

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
SO-02-G-02	Covid

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	1	15583	0.019	1	15583	0.071	1	15583	0.090
00:30 - 01:00	1	15583	0.058	1	15583	0.026	1	15583	0.084
01:00 - 01:30	1	15583	0.051	1	15583	0.051	1	15583	0.102
01:30 - 02:00	1	15583	0.109	1	15583	0.032	1	15583	0.141
02:00 - 02:30	1	15583	0.058	1	15583	0.090	1	15583	0.148
02:30 - 03:00	1	15583	0.128	1	15583	0.058	1	15583	0.186
03:00 - 03:30	1	15583	0.077	1	15583	0.109	1	15583	0.186
03:30 - 04:00	1	15583	0.141	1	15583	0.058	1	15583	0.199
04:00 - 04:30	1	15583	0.058	1	15583	0.122	1	15583	0.180
04:30 - 05:00	1	15583	0.167	1	15583	0.096	1	15583	0.263
05:00 - 05:30	7	6803	0.092	7	6803	0.044	7	6803	0.136
05:30 - 06:00	7	6803	0.157	7	6803	0.046	7	6803	0.203
06:00 - 06:30	7	6803	0.174	7	6803	0.082	7	6803	0.256
06:30 - 07:00	7	6803	0.227	7	6803	0.162	7	6803	0.389
07:00 - 07:30	16	6606	0.169	16	6606	0.142	16	6606	0.311
07:30 - 08:00	16	6606	0.214	16	6606	0.181	16	6606	0.395
08:00 - 08:30	16	6606	0.184	16	6606	0.199	16	6606	0.383
08:30 - 09:00	16	6606	0.194	16	6606	0.175	16	6606	0.369
09:00 - 09:30	16	6606	0.165	16	6606	0.148	16	6606	0.313
09:30 - 10:00	16	6606	0.142	16	6606	0.114	16	6606	0.256
10:00 - 10:30	16	6606	0.131	16	6606	0.117	16	6606	0.248
10:30 - 11:00	16	6606	0.128	16	6606	0.126	16	6606	0.254
11:00 - 11:30	16	6606	0.094	16	6606	0.123	16	6606	0.217
11:30 - 12:00	16	6606	0.114	16	6606	0.129	16	6606	0.243
12:00 - 12:30	16	6606	0.119	16	6606	0.125	16	6606	0.244
12:30 - 13:00	16	6606	0.086	16	6606	0.142	16	6606	0.228
13:00 - 13:30	16	6606	0.117	16	6606	0.166	16	6606	0.283
13:30 - 14:00	16	6606	0.198	16	6606	0.139	16	6606	0.337
14:00 - 14:30	16	6606	0.112	16	6606	0.144	16	6606	0.256
14:30 - 15:00	16	6606	0.097	16	6606	0.115	16	6606	0.212
15:00 - 15:30	16	6606	0.106	16	6606	0.134	16	6606	0.240
15:30 - 16:00	16	6606	0.130	16	6606	0.160	16	6606	0.290
16:00 - 16:30	16	6606	0.144	16	6606	0.207	16	6606	0.351
16:30 - 17:00	16	6606	0.185	16	6606	0.210	16	6606	0.395
17:00 - 17:30	16	6606	0.230	16	6606	0.236	16	6606	0.466
17:30 - 18:00	16	6606	0.227	16	6606	0.220	16	6606	0.447
18:00 - 18:30	16	6606	0.148	16	6606	0.173	16	6606	0.321
18:30 - 19:00	16	6606	0.124	16	6606	0.149	16	6606	0.273
19:00 - 19:30	7	6937	0.128	7	6937	0.128	7	6937	0.256
19:30 - 20:00	7	6937	0.233	7	6937	0.107	7	6937	0.340
20:00 - 20:30	7	6937	0.093	7	6937	0.134	7	6937	0.227
20:30 - 21:00	7	6937	0.056	7	6937	0.074	7	6937	0.130
21:00 - 21:30	5	8753	0.048	5	8753	0.082	5	8753	0.130
21:30 - 22:00	5	8753	0.046	5	8753	0.064	5	8753	0.110
22:00 - 22:30	2	15792	0.063	2	15792	0.108	2	15792	0.171
22:30 - 23:00	2	15792	0.041	2	15792	0.032	2	15792	0.073
23:00 - 23:30	1	15583	0.032	1	15583	0.096	1	15583	0.128
23:30 - 24:00	1	15583	0.109	1	15583	0.116	1	15583	0.225
Total Rates:			5.923			5.762			11.685

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

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

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Parameter summary

Trip rate parameter range selected:	763 - 22679 (units: sqm)
Survey date date range:	01/01/01 - 11/05/21
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	1

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

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	1	15583	0.013	1	15583	0.006	1	15583	0.019
00:30 - 01:00	1	15583	0.039	1	15583	0.006	1	15583	0.045
01:00 - 01:30	1	15583	0.019	1	15583	0.006	1	15583	0.025
01:30 - 02:00	1	15583	0.039	1	15583	0.026	1	15583	0.065
02:00 - 02:30	1	15583	0.013	1	15583	0.039	1	15583	0.052
02:30 - 03:00	1	15583	0.019	1	15583	0.026	1	15583	0.045
03:00 - 03:30	1	15583	0.019	1	15583	0.045	1	15583	0.064
03:30 - 04:00	1	15583	0.019	1	15583	0.019	1	15583	0.038
04:00 - 04:30	1	15583	0.026	1	15583	0.045	1	15583	0.071
04:30 - 05:00	1	15583	0.032	1	15583	0.039	1	15583	0.071
05:00 - 05:30	7	6803	0.019	7	6803	0.019	7	6803	0.038
05:30 - 06:00	7	6803	0.046	7	6803	0.023	7	6803	0.069
06:00 - 06:30	7	6803	0.034	7	6803	0.021	7	6803	0.055
06:30 - 07:00	7	6803	0.019	7	6803	0.042	7	6803	0.061
07:00 - 07:30	16	6606	0.018	16	6606	0.030	16	6606	0.048
07:30 - 08:00	16	6606	0.014	16	6606	0.038	16	6606	0.052
08:00 - 08:30	16	6606	0.012	16	6606	0.046	16	6606	0.058
08:30 - 09:00	16	6606	0.010	16	6606	0.050	16	6606	0.060
09:00 - 09:30	16	6606	0.018	16	6606	0.022	16	6606	0.040
09:30 - 10:00	16	6606	0.014	16	6606	0.014	16	6606	0.028
10:00 - 10:30	16	6606	0.017	16	6606	0.016	16	6606	0.033
10:30 - 11:00	16	6606	0.017	16	6606	0.016	16	6606	0.033
11:00 - 11:30	16	6606	0.014	16	6606	0.014	16	6606	0.028
11:30 - 12:00	16	6606	0.012	16	6606	0.016	16	6606	0.028
12:00 - 12:30	16	6606	0.024	16	6606	0.012	16	6606	0.036
12:30 - 13:00	16	6606	0.008	16	6606	0.016	16	6606	0.024
13:00 - 13:30	16	6606	0.016	16	6606	0.014	16	6606	0.030
13:30 - 14:00	16	6606	0.019	16	6606	0.011	16	6606	0.030
14:00 - 14:30	16	6606	0.011	16	6606	0.028	16	6606	0.039
14:30 - 15:00	16	6606	0.010	16	6606	0.014	16	6606	0.024
15:00 - 15:30	16	6606	0.021	16	6606	0.015	16	6606	0.036
15:30 - 16:00	16	6606	0.019	16	6606	0.013	16	6606	0.032
16:00 - 16:30	16	6606	0.029	16	6606	0.012	16	6606	0.041
16:30 - 17:00	16	6606	0.032	16	6606	0.018	16	6606	0.050
17:00 - 17:30	16	6606	0.034	16	6606	0.015	16	6606	0.049
17:30 - 18:00	16	6606	0.032	16	6606	0.010	16	6606	0.042
18:00 - 18:30	16	6606	0.020	16	6606	0.014	16	6606	0.034
18:30 - 19:00	16	6606	0.016	16	6606	0.019	16	6606	0.035
19:00 - 19:30	7	6937	0.019	7	6937	0.016	7	6937	0.035
19:30 - 20:00	7	6937	0.021	7	6937	0.029	7	6937	0.050
20:00 - 20:30	7	6937	0.021	7	6937	0.023	7	6937	0.044
20:30 - 21:00	7	6937	0.025	7	6937	0.021	7	6937	0.046
21:00 - 21:30	5	8753	0.021	5	8753	0.011	5	8753	0.032
21:30 - 22:00	5	8753	0.016	5	8753	0.018	5	8753	0.034
22:00 - 22:30	2	15792	0.047	2	15792	0.019	2	15792	0.066
22:30 - 23:00	2	15792	0.019	2	15792	0.006	2	15792	0.025
23:00 - 23:30	1	15583	0.026	1	15583	0.013	1	15583	0.039
23:30 - 24:00	1	15583	0.058	1	15583	0.026	1	15583	0.084
Total Rates:			1.066			1.017			2.083

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

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

Appendix B

Cliff Hollins Lane / Site Access Junction Model Results

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: 2022-07-27_Site Access Junction KC COMMENTS.j10
 Path: G:\Shared drives\Jobs31000\31019 Keyland - North Bierley\Models\2022-07-28 Model Files
 Report generation date: 11/08/2022 14:25:41

- »2021 Base, AM
- »2021 Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2031 B2 With Development, AM
- »2031 B2 With Development, PM
- »2031 B8 With Development, AM
- »2031 B8 With Development, PM
- »2031 50% B2 & Parcel Dis. With Development, AM
- »2031 50% B2 & Parcel Dis. With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2021 Base										
Stream B-AC	D1	0.1	8.08	0.06	A	D2	0.2	8.66	0.14	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
2031 Do Minimum										
Stream B-AC	D3	0.1	8.40	0.09	A	D4	0.2	9.47	0.17	A
Stream C-AB		0.0	6.45	0.00	A		0.0	5.79	0.02	A
2031 B2 With Development										
Stream B-AC	D5	0.1	8.72	0.10	A	D6	0.2	9.71	0.18	A
Stream C-AB		0.0	6.77	0.00	A		0.0	5.59	0.02	A
2031 B8 With Development										
Stream B-AC	D7	0.1	8.55	0.09	A	D8	0.2	9.60	0.17	A
Stream C-AB		0.0	6.79	0.00	A		0.0	5.74	0.02	A
2031 50% B2 & Parcel Dis. With Development										
Stream B-AC	D9	0.1	8.73	0.10	A	D10	0.2	9.89	0.18	A
Stream C-AB		0.0	6.82	0.01	A		0.0	5.64	0.02	A

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

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WEEZY\Modelling
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 B2 With Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 B2 With Development	PM	ONE HOUR	16:45	18:15	15	✓
D7	2031 B8 With Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2031 B8 With Development	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 50% B2 & Parcel Dis. With Development	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 50% B2 & Parcel Dis. With Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		2.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.33	A

Arms

Arms

Arm	Name	Description	Arm type
A	Cliff Hollins Ln west		Major
B	Cliff Hollins Ln east		Minor
C	Site Access		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Site Access	7.30			25.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Cliff Hollins Ln east	One lane	3.00	25	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	498	0.086	0.216	0.136	0.309
B-C	640	0.093	0.234	-	-
C-B	588	0.215	0.215	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	64	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	26	100.000
C - Site Access		ONE HOUR	✓	2	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
A - Cliff Hollins Ln west	0	61	3
B - Cliff Hollins Ln east	26	0	0
C - Site Access	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
A - Cliff Hollins Ln west	0	3	40
B - Cliff Hollins Ln east	4	0	0
C - Site Access	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	8.08	0.1	A	24	36
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					56	84
A-C					3	4

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	494	0.040	19	0.0	0.0	7.886	A
C-AB	0	0	578	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	46	11			46				
A-C	2	0.56			2				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	493	0.047	23	0.0	0.1	7.969	A
C-AB	0	0	576	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	55	14			55				
A-C	3	0.67			3				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	492	0.058	29	0.1	0.1	8.078	A
C-AB	0	0	573	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	67	17			67				
A-C	3	0.83			3				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	492	0.058	29	0.1	0.1	8.080	A
C-AB	0	0	573	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	67	17			67				
A-C	3	0.83			3				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	493	0.047	23	0.1	0.1	7.972	A
C-AB	0	0	576	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	55	14			55				
A-C	3	0.67			3				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	494	0.040	20	0.1	0.0	7.893	A
C-AB	0	0	578	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	46	11			46				
A-C	2	0.56			2				

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		4.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	55	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	64	100.000
C - Site Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	55	0
	B - Cliff Hollins Ln east	64	0	0
	C - Site Access	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	0	0
	B - Cliff Hollins Ln east	2	0	0
	C - Site Access	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	8.66	0.2	A	59	88
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					50	76
A-C					0	0

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	494	0.097	48	0.0	0.1	8.181	A
C-AB	0	0	580	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	41	10			41				
A-C	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	14	494	0.117	57	0.1	0.1	8.381	A
C-AB	0	0	578	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	49	12			49				
A-C	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	70	18	493	0.143	70	0.1	0.2	8.655	A
C-AB	0	0	575	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	61	15			61				
A-C	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	70	18	493	0.143	70	0.2	0.2	8.660	A
C-AB	0	0	575	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	61	15			61				
A-C	0	0			0				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	14	494	0.117	58	0.2	0.1	8.391	A
C-AB	0	0	578	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	49	12			49				
A-C	0	0			0				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	494	0.097	48	0.1	0.1	8.199	A
C-AB	0	0	580	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	41	10			41				
A-C	0	0			0				

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		1.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.15	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	214	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	39	100.000
C - Site Access		ONE HOUR	✓	45	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	67	147
	B - Cliff Hollins Ln east	28	0	11
	C - Site Access	43	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	3	8
	B - Cliff Hollins Ln east	4	0	0
	C - Site Access	28	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	8.40	0.1	A	36	54
C-AB	0.00	6.45	0.0	A	2	3
C-A					39	59
A-B					61	92
A-C					135	202

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	498	0.059	29	0.0	0.1	7.878	A
C-AB	2	0.40	576	0.003	2	0.0	0.0	6.341	A
C-A	32	8			32				
A-B	50	13			50				
A-C	111	28			111				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	492	0.071	35	0.1	0.1	8.094	A
C-AB	2	0.48	574	0.003	2	0.0	0.0	6.379	A
C-A	39	10			39				
A-B	60	15			60				
A-C	132	33			132				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	483	0.089	43	0.1	0.1	8.400	A
C-AB	2	0.60	571	0.004	2	0.0	0.0	6.438	A
C-A	47	12			47				
A-B	74	18			74				
A-C	162	40			162				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	483	0.089	43	0.1	0.1	8.404	A
C-AB	2	0.60	571	0.004	2	0.0	0.0	6.448	A
C-A	47	12			47				
A-B	74	18			74				
A-C	162	40			162				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	492	0.071	35	0.1	0.1	8.100	A
C-AB	2	0.48	574	0.003	2	0.0	0.0	6.399	A
C-A	39	10			39				
A-B	60	15			60				
A-C	132	33			132				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	498	0.059	29	0.1	0.1	7.888	A
C-AB	2	0.40	576	0.003	2	0.0	0.0	6.353	A
C-A	32	8			32				
A-B	50	13			50				
A-C	111	28			111				

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		2.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.56	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	91	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	72	100.000
C - Site Access		ONE HOUR	✓	131	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	60	31
	B - Cliff Hollins Ln east	71	0	1
	C - Site Access	121	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	0	23
	B - Cliff Hollins Ln east	2	0	0
	C - Site Access	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.17	9.47	0.2	A	66	99
C-AB	0.02	5.79	0.0	A	11	17
C-A					109	164
A-B					55	83
A-C					28	43

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	14	476	0.114	54	0.0	0.1	8.640	A
C-AB	9	2	636	0.014	9	0.0	0.0	5.779	A
C-A	90	22			90				
A-B	45	11			45				
A-C	23	6			23				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	65	16	471	0.137	65	0.1	0.2	8.977	A
C-AB	11	3	645	0.017	11	0.0	0.0	5.716	A
C-A	107	27			107				
A-B	54	13			54				
A-C	28	7			28				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	79	20	465	0.170	79	0.2	0.2	9.459	A
C-AB	14	3	658	0.021	14	0.0	0.0	5.636	A
C-A	130	33			130				
A-B	66	17			66				
A-C	34	9			34				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	79	20	465	0.170	79	0.2	0.2	9.469	A
C-AB	14	3	658	0.021	14	0.0	0.0	5.642	A
C-A	130	33			130				
A-B	66	17			66				
A-C	34	9			34				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	65	16	471	0.137	65	0.2	0.2	8.991	A
C-AB	11	3	645	0.017	11	0.0	0.0	5.726	A
C-A	107	27			107				
A-B	54	13			54				
A-C	28	7			28				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	14	476	0.114	54	0.2	0.1	8.668	A
C-AB	9	2	636	0.014	9	0.0	0.0	5.786	A
C-A	90	22			90				
A-B	45	11			45				
A-C	23	6			23				

2031 B2 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		0.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.98	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 B2 With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	279	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	41	100.000
C - Site Access		ONE HOUR	✓	60	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	67	212
	B - Cliff Hollins Ln east	28	0	13
	C - Site Access	58	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	3	7
	B - Cliff Hollins Ln east	4	0	1
	C - Site Access	26	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.72	0.1	A	38	56
C-AB	0.00	6.77	0.0	A	2	3
C-A					53	80
A-B					61	92
A-C					195	292

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	490	0.063	31	0.0	0.1	8.044	A
C-AB	2	0.41	574	0.003	2	0.0	0.0	6.649	A
C-A	44	11			44				
A-B	50	13			50				
A-C	160	40			160				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	482	0.077	37	0.1	0.1	8.320	A
C-AB	2	0.49	571	0.003	2	0.0	0.0	6.693	A
C-A	52	13			52				
A-B	60	15			60				
A-C	191	48			191				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	470	0.096	45	0.1	0.1	8.719	A
C-AB	2	0.62	568	0.004	2	0.0	0.0	6.762	A
C-A	64	16			64				
A-B	74	18			74				
A-C	233	58			233				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	470	0.096	45	0.1	0.1	8.722	A
C-AB	2	0.62	568	0.004	2	0.0	0.0	6.773	A
C-A	64	16			64				
A-B	74	18			74				
A-C	233	58			233				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	482	0.077	37	0.1	0.1	8.325	A
C-AB	2	0.50	571	0.003	2	0.0	0.0	6.718	A
C-A	52	13			52				
A-B	60	15			60				
A-C	191	48			191				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	490	0.063	31	0.1	0.1	8.058	A
C-AB	2	0.41	574	0.003	2	0.0	0.0	6.662	A
C-A	44	11			44				
A-B	50	13			50				
A-C	160	40			160				

2031 B2 With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		2.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.21	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 B2 With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	99	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	73	100.000
C - Site Access		ONE HOUR	✓	185	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	60	39
	B - Cliff Hollins Ln east	71	0	2
	C - Site Access	174	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	0	21
	B - Cliff Hollins Ln east	2	0	2
	C - Site Access	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.18	9.71	0.2	A	67	100
C-AB	0.02	5.59	0.0	A	13	20
C-A					156	235
A-B					55	83
A-C					36	54

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	471	0.117	54	0.0	0.1	8.770	A
C-AB	10	3	662	0.016	10	0.0	0.0	5.589	A
C-A	129	32			129				
A-B	45	11			45				
A-C	29	7			29				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	16	465	0.141	65	0.1	0.2	9.150	A
C-AB	13	3	676	0.019	13	0.0	0.0	5.492	A
C-A	153	38			153				
A-B	54	13			54				
A-C	35	9			35				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	20	457	0.176	80	0.2	0.2	9.704	A
C-AB	17	4	696	0.024	17	0.0	0.0	5.368	A
C-A	187	47			187				
A-B	66	17			66				
A-C	43	11			43				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	20	457	0.176	80	0.2	0.2	9.713	A
C-AB	17	4	696	0.024	17	0.0	0.0	5.374	A
C-A	187	47			187				
A-B	66	17			66				
A-C	43	11			43				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	16	465	0.141	66	0.2	0.2	9.165	A
C-AB	13	3	676	0.019	13	0.0	0.0	5.503	A
C-A	153	38			153				
A-B	54	13			54				
A-C	35	9			35				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	471	0.117	55	0.2	0.1	8.797	A
C-AB	10	3	662	0.016	10	0.0	0.0	5.594	A
C-A	129	32			129				
A-B	45	11			45				
A-C	29	7			29				

2031 B8 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		1.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 B8 With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	236	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	39	100.000
C - Site Access		ONE HOUR	✓	56	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	67	169
	B - Cliff Hollins Ln east	28	0	11
	C - Site Access	54	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	3	8
	B - Cliff Hollins Ln east	4	0	1
	C - Site Access	29	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	8.55	0.1	A	36	54
C-AB	0.00	6.79	0.0	A	2	3
C-A					49	74
A-B					61	92
A-C					155	233

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	494	0.059	29	0.0	0.1	7.973	A
C-AB	2	0.40	578	0.003	2	0.0	0.0	6.687	A
C-A	41	10			41				
A-B	50	13			50				
A-C	127	32			127				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	486	0.072	35	0.1	0.1	8.209	A
C-AB	2	0.49	577	0.003	2	0.0	0.0	6.721	A
C-A	48	12			48				
A-B	60	15			60				
A-C	152	38			152				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	476	0.090	43	0.1	0.1	8.549	A
C-AB	2	0.61	574	0.004	2	0.0	0.0	6.776	A
C-A	59	15			59				
A-B	74	18			74				
A-C	186	47			186				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	476	0.090	43	0.1	0.1	8.552	A
C-AB	2	0.61	574	0.004	2	0.0	0.0	6.790	A
C-A	59	15			59				
A-B	74	18			74				
A-C	186	47			186				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	486	0.072	35	0.1	0.1	8.216	A
C-AB	2	0.49	577	0.003	2	0.0	0.0	6.746	A
C-A	48	12			48				
A-B	60	15			60				
A-C	152	38			152				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	494	0.059	29	0.1	0.1	7.983	A
C-AB	2	0.41	578	0.003	2	0.0	0.0	6.700	A
C-A	41	10			41				
A-B	50	13			50				
A-C	127	32			127				

2031 B8 With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		2.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 B8 With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	100	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	73	100.000
C - Site Access		ONE HOUR	✓	152	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	60	40
	B - Cliff Hollins Ln east	71	0	2
	C - Site Access	142	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	0	24
	B - Cliff Hollins Ln east	2	0	5
	C - Site Access	6	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.17	9.60	0.2	A	67	100
C-AB	0.02	5.74	0.0	A	12	17
C-A					128	192
A-B					55	83
A-C					37	55

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	474	0.116	54	0.0	0.1	8.706	A
C-AB	9	2	645	0.014	9	0.0	0.0	5.737	A
C-A	105	26			105				
A-B	45	11			45				
A-C	30	8			30				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	16	469	0.140	65	0.1	0.2	9.067	A
C-AB	11	3	656	0.017	11	0.0	0.0	5.661	A
C-A	125	31			125				
A-B	54	13			54				
A-C	36	9			36				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	20	461	0.174	80	0.2	0.2	9.587	A
C-AB	14	4	672	0.021	14	0.0	0.0	5.562	A
C-A	153	38			153				
A-B	66	17			66				
A-C	44	11			44				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	20	461	0.174	80	0.2	0.2	9.596	A
C-AB	14	4	672	0.021	14	0.0	0.0	5.567	A
C-A	153	38			153				
A-B	66	17			66				
A-C	44	11			44				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	16	469	0.140	66	0.2	0.2	9.082	A
C-AB	11	3	656	0.017	11	0.0	0.0	5.671	A
C-A	125	31			125				
A-B	54	13			54				
A-C	36	9			36				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	474	0.116	55	0.2	0.1	8.735	A
C-AB	9	2	645	0.014	9	0.0	0.0	5.742	A
C-A	105	26			105				
A-B	45	11			45				
A-C	30	8			30				

2031 50% B2 & Parcel Dis. With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		0.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.97	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 50% B2 & Parcel Dis. With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	271	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	41	100.000
C - Site Access		ONE HOUR	✓	81	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	67	204
	B - Cliff Hollins Ln east	28	0	13
	C - Site Access	78	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	3	7
	B - Cliff Hollins Ln east	4	0	1
	C - Site Access	25	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.73	0.1	A	38	56
C-AB	0.01	6.82	0.0	A	3	5
C-A					71	107
A-B					61	92
A-C					187	281

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	490	0.063	31	0.0	0.1	8.050	A
C-AB	3	0.63	586	0.004	2	0.0	0.0	6.757	A
C-A	58	15			58				
A-B	50	13			50				
A-C	154	38			154				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	481	0.077	37	0.1	0.1	8.328	A
C-AB	3	0.77	585	0.005	3	0.0	0.0	6.777	A
C-A	70	17			70				
A-B	60	15			60				
A-C	183	46			183				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	469	0.096	45	0.1	0.1	8.731	A
C-AB	4	0.97	585	0.007	4	0.0	0.0	6.810	A
C-A	85	21			85				
A-B	74	18			74				
A-C	225	56			225				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	469	0.096	45	0.1	0.1	8.735	A
C-AB	4	0.97	585	0.007	4	0.0	0.0	6.821	A
C-A	85	21			85				
A-B	74	18			74				
A-C	225	56			225				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	481	0.077	37	0.1	0.1	8.333	A
C-AB	3	0.77	585	0.005	3	0.0	0.0	6.802	A
C-A	70	17			70				
A-B	60	15			60				
A-C	183	46			183				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	490	0.063	31	0.1	0.1	8.062	A
C-AB	3	0.63	586	0.004	3	0.0	0.0	6.768	A
C-A	58	15			58				
A-B	50	13			50				
A-C	154	38			154				

2031 50% B2 & Parcel Dis. With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cliff Hollins Ln / Site Access Junction	T-Junction	Two-way	Two-way	Two-way		2.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 50% B2 & Parcel Dis. With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cliff Hollins Ln west		ONE HOUR	✓	126	100.000
B - Cliff Hollins Ln east		ONE HOUR	✓	74	100.000
C - Site Access		ONE HOUR	✓	187	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	60	66
	B - Cliff Hollins Ln east	71	0	3
	C - Site Access	176	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Cliff Hollins Ln west	B - Cliff Hollins Ln east	C - Site Access
From	A - Cliff Hollins Ln west	0	0	18
	B - Cliff Hollins Ln east	2	0	6
	C - Site Access	5	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.18	9.89	0.2	A	68	102
C-AB	0.02	5.64	0.0	A	13	20
C-A					158	237
A-B					55	83
A-C					61	91

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	468	0.119	55	0.0	0.1	8.860	A
C-AB	10	3	659	0.016	10	0.0	0.0	5.629	A
C-A	130	33			130				
A-B	45	11			45				
A-C	50	12			50				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	17	461	0.144	66	0.1	0.2	9.274	A
C-AB	13	3	673	0.019	13	0.0	0.0	5.536	A
C-A	155	39			155				
A-B	54	13			54				
A-C	59	15			59				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	20	452	0.180	81	0.2	0.2	9.879	A
C-AB	17	4	692	0.024	17	0.0	0.0	5.416	A
C-A	189	47			189				
A-B	66	17			66				
A-C	73	18			73				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	20	452	0.180	81	0.2	0.2	9.889	A
C-AB	17	4	692	0.024	17	0.0	0.0	5.423	A
C-A	189	47			189				
A-B	66	17			66				
A-C	73	18			73				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	17	461	0.144	67	0.2	0.2	9.291	A
C-AB	13	3	673	0.019	13	0.0	0.0	5.548	A
C-A	155	39			155				
A-B	54	13			54				
A-C	59	15			59				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	468	0.119	56	0.2	0.1	8.889	A
C-AB	10	3	659	0.016	10	0.0	0.0	5.636	A
C-A	130	33			130				
A-B	45	11			45				
A-C	50	12			50				

Appendix C

Mill Carr Hill Road / Cliff Hollins Lane Junction Model Results

Junctions 10
PICADY 10 - Priority Intersection Module
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Filename: 2022-07-27_Mill Carr Cliff Hollins Junction KC COMMENTS.j10
Path: G:\Shared drives\Jobs31000\31019 Keyland - North Bierley\Models\2022-07-28 Model Files
Report generation date: 11/08/2022 14:27:29

- »2021 Base, AM
- »2021 Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2031 B2 With Development, AM
- »2031 B2 With Development, PM
- »2031 B8 With Development, AM
- »2031 B8 With Development, PM
- »2031 50% B2 & Parcel Dis. With Development, AM
- »2031 50% B2 & Parcel Dis. With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2021 Base										
Stream B-C	D1	0.0	5.57	0.04	A	D2	0.1	5.70	0.09	A
Stream B-A		0.0	8.55	0.01	A		0.0	8.57	0.01	A
Stream C-AB		0.2	6.22	0.12	A		0.1	6.65	0.11	A
2031 Do Minimum										
Stream B-C	D3	0.1	6.81	0.11	A	D4	0.4	7.55	0.27	A
Stream B-A		0.0	9.90	0.02	A		0.0	9.19	0.04	A
Stream C-AB		1.0	9.48	0.43	A		0.3	7.68	0.18	A
2031 B2 With Development										
Stream B-C	D5	0.2	7.01	0.13	A	D6	0.6	8.49	0.35	A
Stream B-A		0.0	10.69	0.02	B		0.1	9.45	0.05	A
Stream C-AB		1.8	12.74	0.58	B		0.3	7.88	0.20	A
2031 B8 With Development										
Stream B-C	D7	0.2	7.07	0.12	A	D8	0.5	7.95	0.30	A
Stream B-A		0.0	10.30	0.02	B		0.0	9.37	0.05	A
Stream C-AB		1.2	10.44	0.48	B		0.3	8.01	0.20	A
2031 50% B2 & Parcel Dis. With Development										
Stream B-C	D9	0.2	7.30	0.16	A	D10	0.6	8.58	0.36	A
Stream B-A		0.0	10.83	0.03	B		0.1	9.69	0.05	A
Stream C-AB		1.6	12.20	0.56	B		0.4	8.53	0.25	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WEEZY\Modelling
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 B2 With Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 B2 With Development	PM	ONE HOUR	16:45	18:15	15	✓
D7	2031 B8 With Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2031 B8 With Development	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 50% B2 & Parcel Dis. With Development	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 50% B2 & Parcel Dis. With Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		1.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.79	A

Arms

Arms

Arm	Name	Description	Arm type
A	Mill Carr Hill Rd east		Major
B	Cliff Hollins Ln		Minor
C	Mill Carr Hill Rd west		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Mill Carr Hill Rd west	7.30			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	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 - Cliff Hollins Ln	One lane plus flare	10.00	7.50	5.00	3.50	3.50		2.00	33	31

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	489	0.084	0.212	0.134	0.304
B-C	725	0.105	0.265	-	-
C-B	574	0.210	0.210	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	82	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	31	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	5	77
	B - Cliff Hollins Ln	4	0	27
	C - Mill Carr Hill Rd west	186	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	0	1
	B - Cliff Hollins Ln	0	0	4
	C - Mill Carr Hill Rd west	2	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	5.57	0.0	A	25	37
B-A	0.01	8.55	0.0	A	4	6
C-AB	0.12	6.22	0.2	A	66	99
C-A					154	230
A-B					5	7
A-C					71	106

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	708	0.029	20	0.0	0.0	5.430	A
B-A	3	0.75	446	0.007	3	0.0	0.0	8.131	A
C-AB	51	13	657	0.077	50	0.0	0.1	6.215	A
C-A	129	32			129				
A-B	4	0.94			4				
A-C	58	14			58				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	705	0.034	24	0.0	0.0	5.488	A
B-A	4	0.90	437	0.008	4	0.0	0.0	8.303	A
C-AB	63	16	674	0.094	63	0.1	0.1	6.178	A
C-A	151	38			151				
A-B	4	1			4				
A-C	69	17			69				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	7	700	0.042	30	0.0	0.0	5.570	A
B-A	4	1	425	0.010	4	0.0	0.0	8.549	A
C-AB	83	21	697	0.119	83	0.1	0.2	6.134	A
C-A	180	45			180				
A-B	6	1			6				
A-C	85	21			85				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	7	700	0.042	30	0.0	0.0	5.571	A
B-A	4	1	425	0.010	4	0.0	0.0	8.550	A
C-AB	83	21	697	0.119	83	0.2	0.2	6.133	A
C-A	180	45			180				
A-B	6	1			6				
A-C	85	21			85				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	705	0.034	24	0.0	0.0	5.489	A
B-A	4	0.90	437	0.008	4	0.0	0.0	8.306	A
C-AB	64	16	674	0.094	64	0.2	0.2	6.175	A
C-A	151	38			151				
A-B	4	1			4				
A-C	69	17			69				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	708	0.029	20	0.0	0.0	5.433	A
B-A	3	0.75	446	0.007	3	0.0	0.0	8.136	A
C-AB	51	13	658	0.077	51	0.2	0.1	6.220	A
C-A	129	32			129				
A-B	4	0.94			4				
A-C	58	14			58				

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		2.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.19	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	135	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	57	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	136	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	7	128
	B - Cliff Hollins Ln	3	0	54
	C - Mill Carr Hill Rd west	86	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	15	1
	B - Cliff Hollins Ln	0	0	0
	C - Mill Carr Hill Rd west	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.09	5.70	0.1	A	50	74
B-A	0.01	8.57	0.0	A	3	4
C-AB	0.11	6.65	0.1	A	53	80
C-A					72	108
A-B					6	10
A-C					117	176

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	10	703	0.058	40	0.0	0.1	5.431	A
B-A	2	0.56	442	0.005	2	0.0	0.0	8.181	A
C-AB	42	11	598	0.071	42	0.0	0.1	6.493	A
C-A	60	15			60				
A-B	5	1			5				
A-C	96	24			96				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	12	698	0.070	48	0.1	0.1	5.544	A
B-A	3	0.67	434	0.006	3	0.0	0.0	8.340	A
C-AB	52	13	602	0.086	52	0.1	0.1	6.554	A
C-A	71	18			71				
A-B	6	2			6				
A-C	115	29			115				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	690	0.086	59	0.1	0.1	5.704	A
B-A	3	0.83	423	0.008	3	0.0	0.0	8.568	A
C-AB	65	16	609	0.107	65	0.1	0.1	6.641	A
C-A	84	21			84				
A-B	8	2			8				
A-C	141	35			141				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	690	0.086	59	0.1	0.1	5.704	A
B-A	3	0.83	423	0.008	3	0.0	0.0	8.569	A
C-AB	65	16	609	0.107	65	0.1	0.1	6.648	A
C-A	84	21			84				
A-B	8	2			8				
A-C	141	35			141				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	12	698	0.070	49	0.1	0.1	5.545	A
B-A	3	0.67	434	0.006	3	0.0	0.0	8.341	A
C-AB	52	13	602	0.086	52	0.1	0.1	6.562	A
C-A	71	18			71				
A-B	6	2			6				
A-C	115	29			115				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	10	703	0.058	41	0.1	0.1	5.437	A
B-A	2	0.56	442	0.005	2	0.0	0.0	8.185	A
C-AB	42	11	598	0.071	42	0.1	0.1	6.506	A
C-A	60	15			60				
A-B	5	1			5				
A-C	96	24			96				

2031 Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		5.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.28	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	104	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	75	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	392	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	20	84
	B - Cliff Hollins Ln	7	0	68
	C - Mill Carr Hill Rd west	204	188	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	0	1
	B - Cliff Hollins Ln	0	0	18
	C - Mill Carr Hill Rd west	2	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.11	6.81	0.1	A	62	94
B-A	0.02	9.90	0.0	A	6	10
C-AB	0.43	9.48	1.0	A	240	361
C-A					119	179
A-B					18	28
A-C					77	116

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	707	0.072	51	0.0	0.1	6.455	A
B-A	5	1	408	0.013	5	0.0	0.0	8.927	A
C-AB	184	46	664	0.278	182	0.0	0.5	7.895	A
C-A	111	28			111				
A-B	15	4			15				
A-C	63	16			63				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	703	0.087	61	0.1	0.1	6.602	A
B-A	6	2	393	0.016	6	0.0	0.0	9.313	A
C-AB	232	58	682	0.340	231	0.5	0.7	8.458	A
C-A	121	30			121				
A-B	18	4			18				
A-C	76	19			76				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	19	697	0.107	75	0.1	0.1	6.809	A
B-A	8	2	372	0.021	8	0.0	0.0	9.888	A
C-AB	305	76	706	0.431	303	0.7	1.0	9.433	A
C-A	127	32			127				
A-B	22	6			22				
A-C	92	23			92				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	19	697	0.107	75	0.1	0.1	6.809	A
B-A	8	2	371	0.021	8	0.0	0.0	9.896	A
C-AB	305	76	707	0.431	305	1.0	1.0	9.476	A
C-A	127	32			127				
A-B	22	6			22				
A-C	92	23			92				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	703	0.087	61	0.1	0.1	6.605	A
B-A	6	2	392	0.016	6	0.0	0.0	9.325	A
C-AB	232	58	682	0.341	234	1.0	0.7	8.506	A
C-A	120	30			120				
A-B	18	4			18				
A-C	76	19			76				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	707	0.072	51	0.1	0.1	6.463	A
B-A	5	1	408	0.013	5	0.0	0.0	8.946	A
C-AB	185	46	664	0.278	186	0.7	0.5	7.973	A
C-A	110	28			110				
A-B	15	4			15				
A-C	63	16			63				

2031 Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		4.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.24	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	148	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	184	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	10	138
	B - Cliff Hollins Ln	16	0	168
	C - Mill Carr Hill Rd west	94	82	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	11	1
	B - Cliff Hollins Ln	0	0	4
	C - Mill Carr Hill Rd west	2	9	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.27	7.55	0.4	A	154	231
B-A	0.04	9.19	0.0	A	15	22
C-AB	0.18	7.68	0.3	A	88	132
C-A					73	110
A-B					9	14
A-C					127	190

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	126	32	695	0.182	126	0.0	0.2	6.541	A
B-A	12	3	435	0.028	12	0.0	0.0	8.515	A
C-AB	70	17	600	0.117	69	0.0	0.2	7.306	A
C-A	63	16			63				
A-B	8	2			8				
A-C	104	26			104				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	151	38	688	0.219	151	0.2	0.3	6.937	A
B-A	14	4	424	0.034	14	0.0	0.0	8.785	A
C-AB	86	21	605	0.142	86	0.2	0.2	7.464	A
C-A	72	18			72				
A-B	9	2			9				
A-C	124	31			124				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	185	46	679	0.272	185	0.3	0.4	7.531	A
B-A	18	4	409	0.043	18	0.0	0.0	9.188	A
C-AB	109	27	612	0.178	109	0.2	0.3	7.682	A
C-A	85	21			85				
A-B	11	3			11				
A-C	152	38			152				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	185	46	679	0.272	185	0.4	0.4	7.548	A
B-A	18	4	409	0.043	18	0.0	0.0	9.192	A
C-AB	109	27	612	0.178	109	0.3	0.3	7.684	A
C-A	85	21			85				
A-B	11	3			11				
A-C	152	38			152				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	151	38	688	0.219	151	0.4	0.3	6.955	A
B-A	14	4	424	0.034	14	0.0	0.0	8.789	A
C-AB	86	21	605	0.142	86	0.3	0.2	7.463	A
C-A	72	18			72				
A-B	9	2			9				
A-C	124	31			124				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	126	32	695	0.182	127	0.3	0.2	6.568	A
B-A	12	3	434	0.028	12	0.0	0.0	8.524	A
C-AB	70	18	600	0.117	70	0.2	0.2	7.321	A
C-A	62	16			62				
A-B	8	2			8				
A-C	104	26			104				

2031 B2 With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		7.86	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.86	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 B2 With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	106	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	89	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	455	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	22	84
	B - Cliff Hollins Ln	7	0	82
	C - Mill Carr Hill Rd west	204	251	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	1	1
	B - Cliff Hollins Ln	1	0	18
	C - Mill Carr Hill Rd west	2	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.13	7.01	0.2	A	75	113
B-A	0.02	10.69	0.0	B	6	10
C-AB	0.58	12.74	1.8	B	321	482
C-A					96	144
A-B					20	30
A-C					77	116

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	15	708	0.087	61	0.0	0.1	6.579	A
B-A	5	1	393	0.013	5	0.0	0.0	9.403	A
C-AB	246	61	663	0.371	243	0.0	0.7	8.998	A
C-A	97	24			97				
A-B	17	4			17				
A-C	63	16			63				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	18	703	0.105	74	0.1	0.1	6.757	A
B-A	6	2	374	0.017	6	0.0	0.0	9.907	A
C-AB	310	77	681	0.454	308	0.7	1.0	10.186	B
C-A	99	25			99				
A-B	20	5			20				
A-C	76	19			76				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	23	697	0.129	90	0.1	0.2	7.004	A
B-A	8	2	349	0.022	8	0.0	0.0	10.675	B
C-AB	407	102	706	0.576	404	1.0	1.7	12.546	B
C-A	94	24			94				
A-B	24	6			24				
A-C	92	23			92				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	23	697	0.129	90	0.2	0.2	7.007	A
B-A	8	2	349	0.022	8	0.0	0.0	10.695	B
C-AB	408	102	707	0.577	408	1.7	1.8	12.740	B
C-A	93	23			93				
A-B	24	6			24				
A-C	92	23			92				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	18	703	0.105	74	0.2	0.1	6.760	A
B-A	6	2	373	0.017	6	0.0	0.0	9.934	A
C-AB	311	78	682	0.455	313	1.8	1.1	10.366	B
C-A	98	25			98				
A-B	20	5			20				
A-C	76	19			76				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	15	708	0.087	62	0.1	0.1	6.590	A
B-A	5	1	392	0.013	5	0.0	0.0	9.435	A
C-AB	247	62	664	0.372	248	1.1	0.8	9.174	A
C-A	96	24			96				
A-B	17	4			17				
A-C	63	16			63				

2031 B2 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		5.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.02	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 B2 With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	148	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	236	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	184	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	10	138
	B - Cliff Hollins Ln	18	0	218
	C - Mill Carr Hill Rd west	94	90	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	11	1
	B - Cliff Hollins Ln	0	0	3
	C - Mill Carr Hill Rd west	2	9	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.35	8.49	0.6	A	200	300
B-A	0.05	9.45	0.1	A	17	25
C-AB	0.20	7.88	0.3	A	97	145
C-A					72	108
A-B					9	14
A-C					127	190

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	164	41	695	0.236	163	0.0	0.3	6.976	A
B-A	14	3	431	0.031	13	0.0	0.0	8.640	A
C-AB	77	19	600	0.128	76	0.0	0.2	7.434	A
C-A	62	15			62				
A-B	8	2			8				
A-C	104	26			104				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	196	49	688	0.285	196	0.3	0.4	7.555	A
B-A	16	4	419	0.039	16	0.0	0.0	8.953	A
C-AB	94	24	605	0.156	94	0.2	0.2	7.622	A
C-A	71	18			71				
A-B	9	2			9				
A-C	124	31			124				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	240	60	679	0.354	239	0.4	0.6	8.462	A
B-A	20	5	402	0.049	20	0.0	0.1	9.447	A
C-AB	119	30	612	0.195	119	0.2	0.3	7.884	A
C-A	83	21			83				
A-B	11	3			11				
A-C	152	38			152				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	240	60	679	0.354	240	0.6	0.6	8.486	A
B-A	20	5	402	0.049	20	0.1	0.1	9.452	A
C-AB	119	30	612	0.195	119	0.3	0.3	7.883	A
C-A	83	21			83				
A-B	11	3			11				
A-C	152	38			152				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	196	49	688	0.285	197	0.6	0.4	7.586	A
B-A	16	4	419	0.039	16	0.1	0.0	8.961	A
C-AB	94	24	605	0.156	95	0.3	0.2	7.621	A
C-A	71	18			71				
A-B	9	2			9				
A-C	124	31			124				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	164	41	695	0.236	164	0.4	0.3	7.025	A
B-A	14	3	431	0.031	14	0.0	0.0	8.654	A
C-AB	77	19	600	0.128	77	0.2	0.2	7.455	A
C-A	62	15			62				
A-B	8	2			8				
A-C	104	26			104				

2031 B8 With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		6.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.09	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 B8 With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	105	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	85	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	414	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	21	84
	B - Cliff Hollins Ln	7	0	78
	C - Mill Carr Hill Rd west	204	210	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	0	1
	B - Cliff Hollins Ln	2	0	20
	C - Mill Carr Hill Rd west	2	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	7.07	0.2	A	72	107
B-A	0.02	10.30	0.0	B	6	10
C-AB	0.48	10.44	1.2	B	269	403
C-A					111	167
A-B					19	29
A-C					77	116

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	708	0.083	58	0.0	0.1	6.655	A
B-A	5	1	403	0.013	5	0.0	0.0	9.212	A
C-AB	206	51	663	0.310	203	0.0	0.6	8.280	A
C-A	106	26			106				
A-B	16	4			16				
A-C	63	16			63				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	18	703	0.100	70	0.1	0.1	6.827	A
B-A	6	2	386	0.016	6	0.0	0.0	9.643	A
C-AB	259	65	681	0.380	258	0.6	0.8	9.025	A
C-A	113	28			113				
A-B	19	5			19				
A-C	76	19			76				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	21	698	0.123	86	0.1	0.2	7.065	A
B-A	8	2	363	0.021	8	0.0	0.0	10.290	B
C-AB	340	85	706	0.482	339	0.8	1.2	10.371	B
C-A	116	29			116				
A-B	23	6			23				
A-C	92	23			92				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	21	697	0.123	86	0.2	0.2	7.068	A
B-A	8	2	363	0.021	8	0.0	0.0	10.301	B
C-AB	341	85	707	0.482	341	1.2	1.2	10.444	B
C-A	115	29			115				
A-B	23	6			23				
A-C	92	23			92				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	18	703	0.100	70	0.2	0.1	6.830	A
B-A	6	2	385	0.016	6	0.0	0.0	9.660	A
C-AB	260	65	682	0.381	261	1.2	0.8	9.099	A
C-A	113	28			113				
A-B	19	5			19				
A-C	76	19			76				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	707	0.083	59	0.1	0.1	6.668	A
B-A	5	1	402	0.013	5	0.0	0.0	9.235	A
C-AB	206	52	664	0.311	207	0.8	0.6	8.384	A
C-A	105	26			105				
A-B	16	4			16				
A-C	63	16			63				

2031 B8 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		4.67	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.67	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 B8 With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	148	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	205	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	186	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	10	138
	B - Cliff Hollins Ln	17	0	188
	C - Mill Carr Hill Rd west	94	92	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	12	1
	B - Cliff Hollins Ln	0	0	4
	C - Mill Carr Hill Rd west	2	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.30	7.95	0.5	A	173	259
B-A	0.05	9.37	0.0	A	16	23
C-AB	0.20	8.01	0.3	A	99	148
C-A					72	108
A-B					9	14
A-C					127	190

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	142	35	695	0.204	140	0.0	0.3	6.757	A
B-A	13	3	432	0.030	13	0.0	0.0	8.622	A
C-AB	79	20	600	0.131	78	0.0	0.2	7.542	A
C-A	62	15			62				
A-B	8	2			8				
A-C	104	26			104				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	169	42	688	0.246	169	0.3	0.3	7.221	A
B-A	15	4	421	0.036	15	0.0	0.0	8.918	A
C-AB	96	24	605	0.159	96	0.2	0.2	7.737	A
C-A	71	18			71				
A-B	9	2			9				
A-C	124	31			124				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	207	52	679	0.305	207	0.3	0.5	7.936	A
B-A	19	5	404	0.046	19	0.0	0.0	9.368	A
C-AB	122	31	612	0.199	122	0.2	0.3	8.011	A
C-A	83	21			83				
A-B	11	3			11				
A-C	152	38			152				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	207	52	679	0.305	207	0.5	0.5	7.952	A
B-A	19	5	404	0.046	19	0.0	0.0	9.372	A
C-AB	122	31	612	0.199	122	0.3	0.3	8.011	A
C-A	83	21			83				
A-B	11	3			11				
A-C	152	38			152				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	169	42	688	0.246	169	0.5	0.3	7.240	A
B-A	15	4	420	0.036	15	0.0	0.0	8.925	A
C-AB	96	24	605	0.159	97	0.3	0.2	7.734	A
C-A	71	18			71				
A-B	9	2			9				
A-C	124	31			124				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	142	35	695	0.204	142	0.3	0.3	6.789	A
B-A	13	3	432	0.030	13	0.0	0.0	8.633	A
C-AB	79	20	600	0.131	79	0.2	0.2	7.560	A
C-A	61	15			61				
A-B	8	2			8				
A-C	104	26			104				

2031 50% B2 & Parcel Dis. With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		7.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.49	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 50% B2 & Parcel Dis. With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	106	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	110	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	22	84
	B - Cliff Hollins Ln	8	0	102
	C - Mill Carr Hill Rd west	204	243	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	0	1
	B - Cliff Hollins Ln	3	0	19
	C - Mill Carr Hill Rd west	2	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	7.30	0.2	A	94	140
B-A	0.03	10.83	0.0	B	7	11
C-AB	0.56	12.20	1.6	B	311	467
C-A					99	149
A-B					20	30
A-C					77	116

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	708	0.109	76	0.0	0.1	6.756	A
B-A	6	2	394	0.015	6	0.0	0.0	9.537	A
C-AB	238	60	663	0.359	235	0.0	0.7	8.839	A
C-A	98	25			98				
A-B	17	4			17				
A-C	63	16			63				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	23	703	0.130	92	0.1	0.2	6.977	A
B-A	7	2	376	0.019	7	0.0	0.0	10.042	B
C-AB	300	75	681	0.440	299	0.7	1.0	9.926	A
C-A	102	26			102				
A-B	20	5			20				
A-C	76	19			76				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	28	697	0.161	112	0.2	0.2	7.294	A
B-A	9	2	351	0.025	9	0.0	0.0	10.811	B
C-AB	394	98	706	0.558	391	1.0	1.6	12.043	B
C-A	98	25			98				
A-B	24	6			24				
A-C	92	23			92				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	28	697	0.161	112	0.2	0.2	7.297	A
B-A	9	2	351	0.025	9	0.0	0.0	10.829	B
C-AB	395	99	707	0.558	395	1.6	1.6	12.204	B
C-A	97	24			97				
A-B	24	6			24				
A-C	92	23			92				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	23	703	0.130	92	0.2	0.2	6.987	A
B-A	7	2	375	0.019	7	0.0	0.0	10.067	B
C-AB	301	75	682	0.441	303	1.6	1.0	10.078	B
C-A	101	25			101				
A-B	20	5			20				
A-C	76	19			76				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	708	0.109	77	0.2	0.1	6.770	A
B-A	6	2	393	0.015	6	0.0	0.0	9.567	A
C-AB	239	60	664	0.360	240	1.0	0.7	8.997	A
C-A	98	24			98				
A-B	17	4			17				
A-C	63	16			63				

2031 50% B2 & Parcel Dis. With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cliff Hollins Ln - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Mill Carr Hill Rd / Cliff Hollins Ln	T-Junction	Two-way	Two-way	Two-way		5.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 50% B2 & Parcel Dis. With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Mill Carr Hill Rd east		ONE HOUR	✓	149	100.000
B - Cliff Hollins Ln		ONE HOUR	✓	239	100.000
C - Mill Carr Hill Rd west		ONE HOUR	✓	210	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	11	138
	B - Cliff Hollins Ln	18	0	221
	C - Mill Carr Hill Rd west	94	116	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Mill Carr Hill Rd east	B - Cliff Hollins Ln	C - Mill Carr Hill Rd west
From	A - Mill Carr Hill Rd east	0	12	1
	B - Cliff Hollins Ln	0	0	4
	C - Mill Carr Hill Rd west	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.36	8.58	0.6	A	203	304
B-A	0.05	9.69	0.1	A	17	25
C-AB	0.25	8.53	0.4	A	125	187
C-A					68	102
A-B					10	15
A-C					127	190

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	695	0.240	165	0.0	0.3	7.032	A
B-A	14	3	425	0.032	13	0.0	0.0	8.777	A
C-AB	99	25	600	0.165	98	0.0	0.2	7.803	A
C-A	59	15			59				
A-B	8	2			8				
A-C	104	26			104				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	50	688	0.289	198	0.3	0.4	7.626	A
B-A	16	4	412	0.039	16	0.0	0.0	9.129	A
C-AB	121	30	605	0.201	121	0.2	0.3	8.096	A
C-A	67	17			67				
A-B	10	2			10				
A-C	124	31			124				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	243	61	678	0.359	243	0.4	0.6	8.556	A
B-A	20	5	393	0.050	20	0.0	0.1	9.686	A
C-AB	154	38	612	0.251	153	0.3	0.4	8.522	A
C-A	77	19			77				
A-B	12	3			12				
A-C	152	38			152				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	243	61	678	0.359	243	0.6	0.6	8.580	A
B-A	20	5	393	0.050	20	0.1	0.1	9.693	A
C-AB	154	38	612	0.252	154	0.4	0.4	8.529	A
C-A	77	19			77				
A-B	12	3			12				
A-C	152	38			152				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	50	688	0.289	199	0.6	0.4	7.650	A
B-A	16	4	412	0.039	16	0.1	0.0	9.139	A
C-AB	121	30	605	0.201	122	0.4	0.3	8.098	A
C-A	67	17			67				
A-B	10	2			10				
A-C	124	31			124				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	695	0.240	167	0.4	0.3	7.077	A
B-A	14	3	425	0.032	14	0.0	0.0	8.792	A
C-AB	99	25	600	0.165	99	0.3	0.2	7.834	A
C-A	59	15			59				
A-B	8	2			8				
A-C	104	26			104				

Appendix D

Bradford Road / Mill Carr Hill Road Junction Model Results

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: 2022-07-27_Bradford Road Mill Carr Cliff Hollins Junction KC COMMENTS.j10
Path: G:\Shared drives\Jobs31000\31019 Keyland - North Bierley\Models\2022-07-28 Model Files
Report generation date: 11/08/2022 14:28:53

- »2021 Base, AM
- »2021 Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2031 B2 With Development, AM
- »2031 B2 With Development, PM
- »2031 B8 With Development, AM
- »2031 B8 With Development, PM
- »2031 50% B2 & Parcel Dis. With Development, AM
- »2031 50% B2 & Parcel Dis. With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2021 Base										
Stream B-C	D1	0.1	7.99	0.11	A	D2	0.2	8.36	0.19	A
Stream B-A		0.3	14.59	0.22	B		0.5	17.93	0.33	C
Stream C-AB		0.3	7.42	0.21	A		0.2	6.48	0.12	A
2031 Do Minimum										
Stream B-C	D3	0.3	9.79	0.20	A	D4	0.7	11.92	0.40	B
Stream B-A		0.5	23.34	0.34	C		1.0	29.23	0.51	D
Stream C-AB		1.5	9.55	0.48	A		0.3	6.70	0.18	A
2031 B2 With Development										
Stream B-C	D5	0.3	10.26	0.22	B	D6	1.0	14.26	0.50	B
Stream B-A		0.7	27.80	0.39	D		1.3	33.95	0.57	D
Stream C-AB		2.5	11.46	0.59	B		0.4	6.72	0.20	A
2031 B8 With Development										
Stream B-C	D7	0.3	10.16	0.21	B	D8	0.8	12.85	0.44	B
Stream B-A		0.6	25.16	0.36	D		1.1	31.54	0.53	D
Stream C-AB		1.8	10.07	0.52	B		0.4	6.76	0.20	A
2031 50% B2 & Parcel Dis. With Development										
Stream B-C	D9	0.4	10.75	0.26	B	D10	1.0	14.79	0.51	B
Stream B-A		0.7	28.85	0.41	D		1.4	36.98	0.59	E
Stream C-AB		2.3	11.15	0.58	B		0.5	6.76	0.24	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WEEZY\Modelling
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 B2 With Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 B2 With Development	PM	ONE HOUR	16:45	18:15	15	✓
D7	2031 B8 With Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2031 B8 With Development	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 50% B2 & Parcel Dis. With Development	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 50% B2 & Parcel Dis. With Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		1.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.83	A

Arms

Arms

Arm	Name	Description	Arm type
A	Bradford Rd north		Major
B	Mill Carr Hill Rd		Minor
C	Bradford Rd south		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Bradford Rd south	7.80		✓	2.20	170.0	✓	1.00

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	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 - Mill Carr Hill Rd	One lane plus flare	10.00	8.75	7.00	7.00	7.00		4.60	50	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	577	0.097	0.245	0.154	0.350
B-C	681	0.096	0.243	-	-
C-B	672	0.240	0.240	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	555	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	119	100.000
C - Bradford Rd south		ONE HOUR	✓	557	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	148	407
	B - Mill Carr Hill Rd	67	0	52
	C - Bradford Rd south	456	101	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	3	17
	B - Mill Carr Hill Rd	6	0	4
	C - Bradford Rd south	9	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.11	7.99	0.1	A	48	72
B-A	0.22	14.59	0.3	B	61	92
C-AB	0.21	7.42	0.3	A	106	159
C-A					405	607
A-B					136	204
A-C					373	560

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	578	0.068	39	0.0	0.1	6.929	A
B-A	50	13	412	0.122	50	0.0	0.1	10.523	B
C-AB	82	21	620	0.133	82	0.0	0.2	6.855	A
C-A	337	84			337				
A-B	111	28			111				
A-C	306	77			306				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	12	556	0.084	47	0.1	0.1	7.334	A
B-A	60	15	380	0.159	60	0.1	0.2	11.928	B
C-AB	102	26	622	0.164	102	0.2	0.2	7.108	A
C-A	398	100			398				
A-B	133	33			133				
A-C	366	91			366				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	57	14	525	0.109	57	0.1	0.1	7.977	A
B-A	74	18	335	0.220	73	0.2	0.3	14.546	B
C-AB	134	34	634	0.212	134	0.2	0.3	7.409	A
C-A	479	120			479				
A-B	163	41			163				
A-C	448	112			448				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	57	14	525	0.109	57	0.1	0.1	7.987	A
B-A	74	18	335	0.220	74	0.3	0.3	14.588	B
C-AB	134	34	635	0.212	134	0.3	0.3	7.421	A
C-A	479	120			479				
A-B	163	41			163				
A-C	448	112			448				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	12	555	0.084	47	0.1	0.1	7.347	A
B-A	60	15	380	0.159	61	0.3	0.2	11.967	B
C-AB	102	26	624	0.164	103	0.3	0.2	7.127	A
C-A	398	100			398				
A-B	133	33			133				
A-C	366	91			366				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	577	0.068	39	0.1	0.1	6.947	A
B-A	50	13	412	0.122	51	0.2	0.1	10.569	B
C-AB	82	21	620	0.133	83	0.2	0.2	6.879	A
C-A	337	84			337				
A-B	111	28			111				
A-C	306	77			306				

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		1.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.89	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	473	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	183	100.000
C - Bradford Rd south		ONE HOUR	✓	833	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	94	379
	B - Mill Carr Hill Rd	90	0	93
	C - Bradford Rd south	775	58	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	0	5
	B - Mill Carr Hill Rd	0	0	2
	C - Bradford Rd south	7	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.19	8.36	0.2	A	85	128
B-A	0.33	17.93	0.5	C	83	124
C-AB	0.12	6.48	0.2	A	61	91
C-A					704	1056
A-B					86	129
A-C					348	522

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	18	601	0.116	69	0.0	0.1	6.902	A
B-A	68	17	381	0.178	67	0.0	0.2	11.447	B
C-AB	47	12	634	0.074	47	0.0	0.1	6.352	A
C-A	580	145			580				
A-B	71	18			71				
A-C	285	71			285				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	21	577	0.145	83	0.1	0.2	7.438	A
B-A	81	20	347	0.233	81	0.2	0.3	13.511	B
C-AB	58	15	639	0.091	58	0.1	0.1	6.433	A
C-A	690	173			690				
A-B	85	21			85				
A-C	341	85			341				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	26	543	0.189	102	0.2	0.2	8.340	A
B-A	99	25	300	0.331	98	0.3	0.5	17.821	C
C-AB	76	19	654	0.117	76	0.1	0.2	6.478	A
C-A	841	210			841				
A-B	103	26			103				
A-C	417	104			417				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	26	542	0.189	102	0.2	0.2	8.363	A
B-A	99	25	300	0.331	99	0.5	0.5	17.929	C
C-AB	76	19	654	0.117	76	0.2	0.2	6.480	A
C-A	841	210			841				
A-B	103	26			103				
A-C	417	104			417				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	21	576	0.145	84	0.2	0.2	7.465	A
B-A	81	20	347	0.233	82	0.5	0.3	13.604	B
C-AB	58	15	640	0.091	59	0.2	0.1	6.438	A
C-A	690	173			690				
A-B	85	21			85				
A-C	341	85			341				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	18	600	0.117	70	0.2	0.1	6.935	A
B-A	68	17	381	0.178	68	0.3	0.2	11.524	B
C-AB	47	12	635	0.074	47	0.1	0.1	6.362	A
C-A	580	145			580				
A-B	71	18			71				
A-C	285	71			285				

2031 Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		3.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.64	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	643	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	170	100.000
C - Bradford Rd south		ONE HOUR	✓	725	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	183	460
	B - Mill Carr Hill Rd	76	0	94
	C - Bradford Rd south	506	219	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	2	16
	B - Mill Carr Hill Rd	6	0	14
	C - Bradford Rd south	9	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.20	9.79	0.3	A	86	129
B-A	0.34	23.34	0.5	C	70	105
C-AB	0.48	9.55	1.5	A	279	419
C-A					386	579
A-B					168	252
A-C					422	633

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	596	0.119	70	0.0	0.2	7.799	A
B-A	57	14	341	0.168	56	0.0	0.2	13.336	B
C-AB	201	50	677	0.296	198	0.0	0.5	7.970	A
C-A	345	86			345				
A-B	138	34			138				
A-C	346	87			346				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	567	0.149	84	0.2	0.2	8.506	A
B-A	68	17	301	0.227	68	0.2	0.3	16.279	C
C-AB	262	66	710	0.369	261	0.5	0.8	8.529	A
C-A	390	97			390				
A-B	165	41			165				
A-C	414	103			414				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	524	0.198	103	0.2	0.3	9.754	A
B-A	84	21	247	0.339	83	0.3	0.5	23.060	C
C-AB	375	94	779	0.481	372	0.8	1.4	9.437	A
C-A	424	106			424				
A-B	201	50			201				
A-C	506	127			506				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	523	0.198	103	0.3	0.3	9.793	A
B-A	84	21	246	0.340	84	0.5	0.5	23.345	C
C-AB	375	94	780	0.480	374	1.4	1.5	9.551	A
C-A	424	106			424				
A-B	201	50			201				
A-C	506	127			506				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	565	0.150	85	0.3	0.2	8.550	A
B-A	68	17	301	0.227	69	0.5	0.3	16.480	C
C-AB	262	66	712	0.368	265	1.5	0.8	8.671	A
C-A	390	97			390				
A-B	165	41			165				
A-C	414	103			414				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	594	0.119	71	0.2	0.2	7.843	A
B-A	57	14	340	0.168	58	0.3	0.2	13.475	B
C-AB	201	50	677	0.296	202	0.8	0.6	8.081	A
C-A	345	86			345				
A-B	138	34			138				
A-C	346	87			346				

2031 Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		3.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	524	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	309	100.000
C - Bradford Rd south		ONE HOUR	✓	937	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	105	419
	B - Mill Carr Hill Rd	115	0	194
	C - Bradford Rd south	848	89	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	0	5
	B - Mill Carr Hill Rd	0	0	4
	C - Bradford Rd south	7	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.40	11.92	0.7	B	178	267
B-A	0.51	29.23	1.0	D	106	158
C-AB	0.18	6.70	0.3	A	104	155
C-A					756	1134
A-B					96	145
A-C					384	577

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	146	37	613	0.238	145	0.0	0.3	7.985	A
B-A	87	22	337	0.257	85	0.0	0.3	14.247	B
C-AB	77	19	668	0.116	77	0.0	0.2	6.679	A
C-A	628	157			628				
A-B	79	20			79				
A-C	315	79			315				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	174	44	581	0.300	174	0.3	0.4	9.195	A
B-A	103	26	300	0.345	103	0.3	0.5	18.173	C
C-AB	99	25	690	0.143	98	0.2	0.2	6.673	A
C-A	744	186			744				
A-B	94	24			94				
A-C	377	94			377				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	214	53	530	0.403	213	0.4	0.7	11.779	B
B-A	127	32	249	0.508	125	0.5	1.0	28.492	D
C-AB	135	34	735	0.183	134	0.2	0.3	6.564	A
C-A	897	224			897				
A-B	116	29			116				
A-C	461	115			461				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	214	53	528	0.404	214	0.7	0.7	11.918	B
B-A	127	32	249	0.508	127	1.0	1.0	29.227	D
C-AB	135	34	734	0.184	135	0.3	0.3	6.571	A
C-A	897	224			897				
A-B	116	29			116				
A-C	461	115			461				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	174	44	579	0.301	175	0.7	0.5	9.314	A
B-A	103	26	300	0.344	105	1.0	0.5	18.614	C
C-AB	99	25	689	0.143	99	0.3	0.2	6.687	A
C-A	744	186			744				
A-B	94	24			94				
A-C	377	94			377				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	146	37	612	0.239	147	0.5	0.3	8.075	A
B-A	87	22	337	0.257	87	0.5	0.4	14.478	B
C-AB	77	19	667	0.116	78	0.2	0.2	6.700	A
C-A	628	157			628				
A-B	79	20			79				
A-C	315	79			315				

2031 B2 With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		4.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.84	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 B2 With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	656	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	184	100.000
C - Bradford Rd south		ONE HOUR	✓	774	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	196	460
	B - Mill Carr Hill Rd	79	0	105
	C - Bradford Rd south	506	268	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	3	16
	B - Mill Carr Hill Rd	6	0	15
	C - Bradford Rd south	9	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.22	10.26	0.3	B	96	145
B-A	0.39	27.80	0.7	D	72	109
C-AB	0.59	11.46	2.5	B	363	544
C-A					347	521
A-B					180	270
A-C					422	633

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	20	598	0.132	78	0.0	0.2	7.936	A
B-A	59	15	324	0.183	59	0.0	0.2	14.333	B
C-AB	255	64	700	0.364	252	0.0	0.7	8.500	A
C-A	328	82			328				
A-B	148	37			148				
A-C	346	87			346				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	94	24	567	0.166	94	0.2	0.2	8.727	A
B-A	71	18	283	0.251	71	0.2	0.3	17.999	C
C-AB	339	85	745	0.454	337	0.7	1.2	9.383	A
C-A	357	89			357				
A-B	176	44			176				
A-C	414	103			414				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	116	29	520	0.223	115	0.2	0.3	10.200	B
B-A	87	22	225	0.386	86	0.3	0.6	27.225	D
C-AB	495	124	836	0.592	490	1.2	2.4	11.142	B
C-A	357	89			357				
A-B	216	54			216				
A-C	506	127			506				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	116	29	518	0.223	116	0.3	0.3	10.265	B
B-A	87	22	224	0.388	87	0.6	0.7	27.804	D
C-AB	495	124	838	0.591	495	2.4	2.5	11.457	B
C-A	357	89			357				
A-B	216	54			216				
A-C	506	127			506				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	94	24	565	0.167	95	0.3	0.2	8.791	A
B-A	71	18	282	0.252	72	0.7	0.4	18.359	C
C-AB	339	85	748	0.453	343	2.5	1.3	9.698	A
C-A	357	89			357				
A-B	176	44			176				
A-C	414	103			414				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	20	596	0.133	79	0.2	0.2	7.992	A
B-A	59	15	324	0.184	60	0.4	0.2	14.534	B
C-AB	255	64	701	0.364	257	1.3	0.8	8.691	A
C-A	328	82			328				
A-B	148	37			148				
A-C	346	87			346				

2031 B2 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		4.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.60	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 B2 With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	526	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	359	100.000
C - Bradford Rd south		ONE HOUR	✓	944	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	107	419
	B - Mill Carr Hill Rd	125	0	234
	C - Bradford Rd south	848	96	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	0	5
	B - Mill Carr Hill Rd	0	0	4
	C - Bradford Rd south	7	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.50	14.26	1.0	B	215	322
B-A	0.57	33.95	1.3	D	115	172
C-AB	0.20	6.72	0.4	A	114	171
C-A					753	1129
A-B					98	147
A-C					384	577

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	176	44	614	0.287	175	0.0	0.4	8.487	A
B-A	94	24	332	0.284	93	0.0	0.4	15.018	C
C-AB	84	21	675	0.125	84	0.0	0.2	6.698	A
C-A	626	157			626				
A-B	81	20			81				
A-C	315	79			315				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	210	53	580	0.363	210	0.4	0.6	10.091	B
B-A	112	28	295	0.381	112	0.4	0.6	19.604	C
C-AB	108	27	700	0.154	108	0.2	0.2	6.685	A
C-A	741	185			741				
A-B	96	24			96				
A-C	377	94			377				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	258	64	523	0.493	256	0.6	1.0	13.966	B
B-A	138	34	243	0.566	135	0.6	1.2	32.672	D
C-AB	149	37	750	0.198	148	0.2	0.4	6.563	A
C-A	891	223			891				
A-B	118	29			118				
A-C	461	115			461				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	258	64	520	0.496	258	1.0	1.0	14.265	B
B-A	138	34	243	0.566	137	1.2	1.3	33.948	D
C-AB	149	37	749	0.198	149	0.4	0.4	6.572	A
C-A	891	223			891				
A-B	118	29			118				
A-C	461	115			461				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	210	53	577	0.364	212	1.0	0.6	10.297	B
B-A	112	28	295	0.381	115	1.3	0.6	20.284	C
C-AB	108	27	699	0.155	109	0.4	0.3	6.701	A
C-A	741	185			741				
A-B	96	24			96				
A-C	377	94			377				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	176	44	612	0.288	177	0.6	0.4	8.617	A
B-A	94	24	332	0.284	95	0.6	0.4	15.322	C
C-AB	84	21	674	0.125	85	0.3	0.2	6.720	A
C-A	626	157			626				
A-B	81	20			81				
A-C	315	79			315				

2031 B8 With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		4.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 B8 With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	647	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	180	100.000
C - Bradford Rd south		ONE HOUR	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	187	460
	B - Mill Carr Hill Rd	78	0	102
	C - Bradford Rd south	506	235	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	3	16
	B - Mill Carr Hill Rd	7	0	16
	C - Bradford Rd south	9	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.21	10.16	0.3	B	94	140
B-A	0.36	25.16	0.6	D	72	107
C-AB	0.52	10.07	1.8	B	306	459
C-A					374	561
A-B					172	257
A-C					422	633

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	599	0.128	76	0.0	0.2	7.961	A
B-A	59	15	334	0.176	58	0.0	0.2	13.849	B
C-AB	218	55	685	0.319	216	0.0	0.6	8.149	A
C-A	340	85			340				
A-B	141	35			141				
A-C	346	87			346				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	23	569	0.161	91	0.2	0.2	8.724	A
B-A	70	18	294	0.239	70	0.2	0.3	17.084	C
C-AB	287	72	722	0.397	285	0.6	0.9	8.794	A
C-A	380	95			380				
A-B	168	42			168				
A-C	414	103			414				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	28	524	0.214	112	0.2	0.3	10.106	B
B-A	86	21	239	0.360	85	0.3	0.6	24.781	C
C-AB	413	103	799	0.517	410	0.9	1.7	9.914	A
C-A	403	101			403				
A-B	206	51			206				
A-C	506	127			506				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	28	522	0.215	112	0.3	0.3	10.156	B
B-A	86	21	238	0.361	86	0.6	0.6	25.156	D
C-AB	413	103	800	0.516	413	1.7	1.8	10.073	B
C-A	403	101			403				
A-B	206	51			206				
A-C	506	127			506				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	23	567	0.162	92	0.3	0.2	8.778	A
B-A	70	18	293	0.239	71	0.6	0.3	17.339	C
C-AB	287	72	724	0.396	290	1.8	1.0	8.979	A
C-A	380	95			380				
A-B	168	42			168				
A-C	414	103			414				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	597	0.129	77	0.2	0.2	8.014	A
B-A	59	15	333	0.176	59	0.3	0.2	14.010	B
C-AB	218	55	686	0.318	220	1.0	0.6	8.284	A
C-A	340	85			340				
A-B	141	35			141				
A-C	346	87			346				

2031 B8 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		4.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.06	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 B8 With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	526	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	329	100.000
C - Bradford Rd south		ONE HOUR	✓	945	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	107	419
	B - Mill Carr Hill Rd	119	0	210
	C - Bradford Rd south	848	97	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	1	5
	B - Mill Carr Hill Rd	0	0	5
	C - Bradford Rd south	7	12	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.44	12.85	0.8	B	193	289
B-A	0.53	31.54	1.1	D	109	164
C-AB	0.20	6.76	0.4	A	115	173
C-A					752	1127
A-B					98	147
A-C					384	577

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	158	40	614	0.258	157	0.0	0.4	8.217	A
B-A	90	22	333	0.269	88	0.0	0.4	14.657	B
C-AB	86	21	677	0.126	85	0.0	0.2	6.733	A
C-A	626	156			626				
A-B	81	20			81				
A-C	315	79			315				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	189	47	581	0.325	188	0.4	0.5	9.584	A
B-A	107	27	296	0.361	106	0.4	0.5	18.920	C
C-AB	110	27	704	0.156	109	0.2	0.3	6.711	A
C-A	740	185			740				
A-B	96	24			96				
A-C	377	94			377				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	231	58	526	0.439	230	0.5	0.8	12.653	B
B-A	131	33	245	0.535	129	0.5	1.1	30.569	D
C-AB	151	38	755	0.200	151	0.3	0.4	6.577	A
C-A	889	222			889				
A-B	118	29			118				
A-C	461	115			461				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	231	58	524	0.441	231	0.8	0.8	12.847	B
B-A	131	33	245	0.535	131	1.1	1.1	31.536	D
C-AB	151	38	754	0.200	151	0.4	0.4	6.587	A
C-A	889	222			889				
A-B	118	29			118				
A-C	461	115			461				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	189	47	578	0.327	190	0.8	0.5	9.732	A
B-A	107	27	297	0.361	109	1.1	0.6	19.465	C
C-AB	110	27	702	0.156	110	0.4	0.3	6.730	A
C-A	740	185			740				
A-B	96	24			96				
A-C	377	94			377				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	158	40	612	0.258	159	0.5	0.4	8.323	A
B-A	90	22	333	0.269	90	0.6	0.4	14.922	B
C-AB	86	21	677	0.127	86	0.3	0.2	6.758	A
C-A	626	156			626				
A-B	81	20			81				
A-C	315	79			315				

2031 50% B2 & Parcel Dis. With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		4.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.91	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 50% B2 & Parcel Dis. With Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	654	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	204	100.000
C - Bradford Rd south		ONE HOUR	✓	768	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	194	460
	B - Mill Carr Hill Rd	83	0	121
	C - Bradford Rd south	506	262	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	3	16
	B - Mill Carr Hill Rd	7	0	15
	C - Bradford Rd south	9	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.26	10.75	0.4	B	111	167
B-A	0.41	28.85	0.7	D	76	114
C-AB	0.58	11.15	2.3	B	352	528
C-A					353	529
A-B					178	267
A-C					422	633

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	91	23	602	0.151	90	0.0	0.2	8.112	A
B-A	62	16	323	0.193	61	0.0	0.3	14.661	B
C-AB	248	62	697	0.356	245	0.0	0.7	8.426	A
C-A	330	83			330				
A-B	146	37			146				
A-C	346	87			346				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	109	27	570	0.191	109	0.2	0.3	8.997	A
B-A	75	19	282	0.265	74	0.3	0.4	18.484	C
C-AB	329	82	741	0.444	327	0.7	1.1	9.260	A
C-A	362	90			362				
A-B	174	44			174				
A-C	414	103			414				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	133	33	521	0.256	133	0.3	0.4	10.682	B
B-A	91	23	225	0.406	90	0.4	0.7	28.194	D
C-AB	480	120	829	0.578	475	1.1	2.3	10.887	B
C-A	366	91			366				
A-B	214	53			214				
A-C	506	127			506				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	133	33	519	0.256	133	0.4	0.4	10.755	B
B-A	91	23	224	0.407	91	0.7	0.7	28.854	D
C-AB	480	120	831	0.578	479	2.3	2.3	11.151	B
C-A	366	91			366				
A-B	214	53			214				
A-C	506	127			506				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	109	27	568	0.192	109	0.4	0.3	9.064	A
B-A	75	19	281	0.266	76	0.7	0.4	18.896	C
C-AB	329	82	743	0.442	333	2.3	1.2	9.543	A
C-A	362	90			362				
A-B	174	44			174				
A-C	414	103			414				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	91	23	600	0.152	91	0.3	0.2	8.173	A
B-A	62	16	322	0.194	63	0.4	0.3	14.887	B
C-AB	248	62	698	0.355	250	1.2	0.8	8.606	A
C-A	330	83			330				
A-B	146	37			146				
A-C	346	87			346				

2031 50% B2 & Parcel Dis. With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Mill Carr Hill Rd - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bradford Rd / Mill Carr Hill Rd	T-Junction	Two-way	Two-way	Two-way		4.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.96	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 50% B2 & Parcel Dis. With Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bradford Rd north		ONE HOUR	✓	531	100.000
B - Mill Carr Hill Rd		ONE HOUR	✓	362	100.000
C - Bradford Rd south		ONE HOUR	✓	964	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	112	419
	B - Mill Carr Hill Rd	126	0	236
	C - Bradford Rd south	848	116	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Bradford Rd north	B - Mill Carr Hill Rd	C - Bradford Rd south
From	A - Bradford Rd north	0	1	5
	B - Mill Carr Hill Rd	0	0	4
	C - Bradford Rd south	7	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.51	14.79	1.0	B	217	325
B-A	0.59	36.98	1.4	E	116	173
C-AB	0.24	6.76	0.5	A	143	215
C-A					741	1112
A-B					103	154
A-C					384	577

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	178	44	613	0.290	176	0.0	0.4	8.560	A
B-A	95	24	326	0.291	93	0.0	0.4	15.401	C
C-AB	105	26	693	0.152	104	0.0	0.2	6.734	A
C-A	621	155			621				
A-B	84	21			84				
A-C	315	79			315				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	212	53	578	0.367	211	0.4	0.6	10.229	B
B-A	113	28	289	0.392	112	0.4	0.6	20.388	C
C-AB	136	34	727	0.187	135	0.2	0.3	6.709	A
C-A	731	183			731				
A-B	101	25			101				
A-C	377	94			377				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	260	65	517	0.503	258	0.6	1.0	14.413	B
B-A	139	35	236	0.589	136	0.6	1.3	35.305	E
C-AB	190	47	791	0.240	189	0.3	0.5	6.573	A
C-A	872	218			872				
A-B	123	31			123				
A-C	461	115			461				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	260	65	513	0.506	260	1.0	1.0	14.786	B
B-A	139	35	236	0.589	139	1.3	1.4	36.982	E
C-AB	190	47	790	0.240	190	0.5	0.5	6.587	A
C-A	872	218			872				
A-B	123	31			123				
A-C	461	115			461				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	212	53	574	0.369	214	1.0	0.6	10.454	B
B-A	113	28	289	0.392	116	1.4	0.7	21.217	C
C-AB	136	34	724	0.187	136	0.5	0.3	6.732	A
C-A	731	183			731				
A-B	101	25			101				
A-C	377	94			377				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	178	44	611	0.291	178	0.6	0.4	8.697	A
B-A	95	24	326	0.291	96	0.7	0.4	15.739	C
C-AB	105	26	692	0.152	105	0.3	0.2	6.762	A
C-A	621	155			621				
A-B	84	21			84				
A-C	315	79			315				