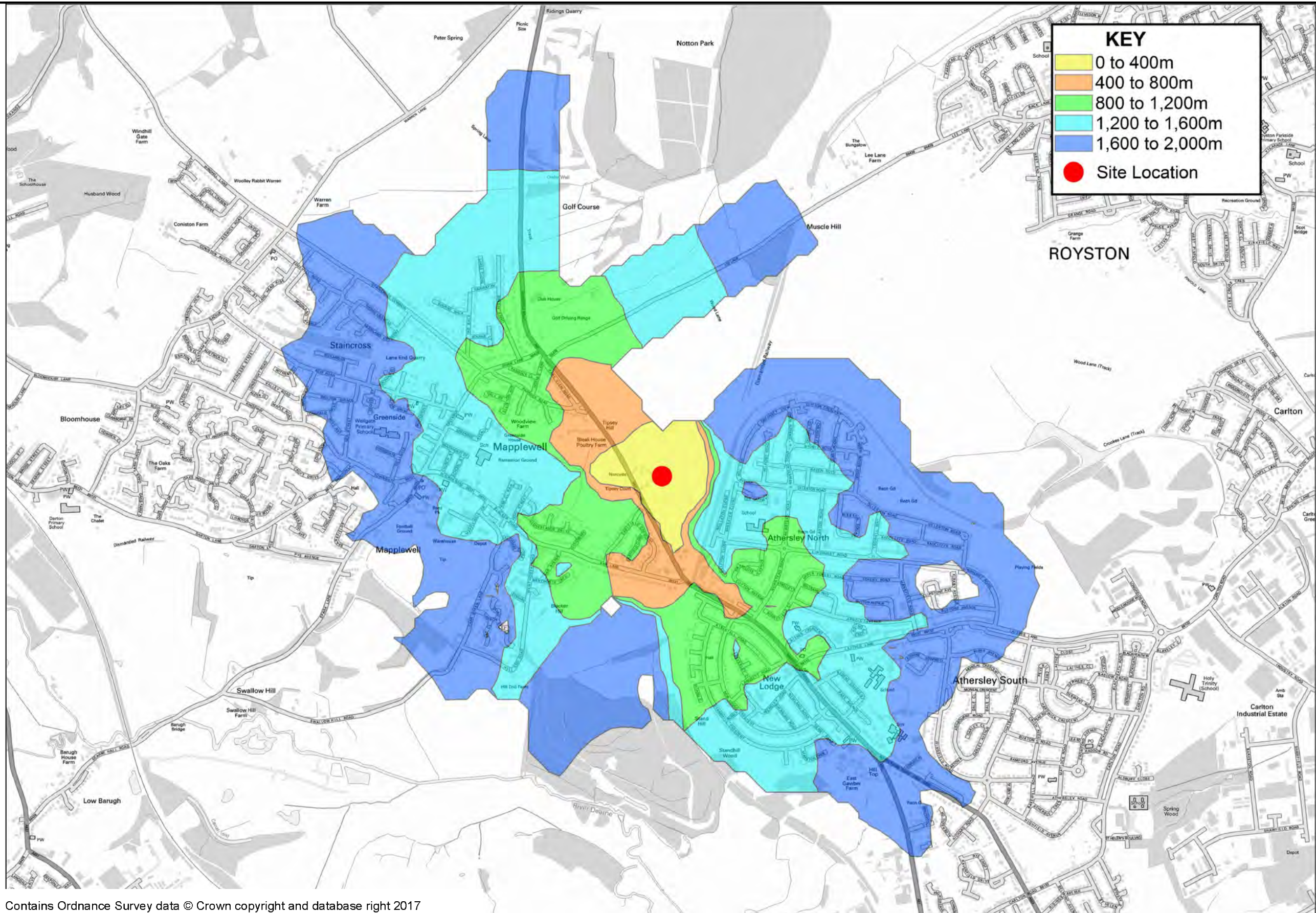


APPENDIX BGH 12



Client:		Project:						
NETHERTON BUILDING AND CONSTRUCTION LTD		PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL						
BRYAN G HALL CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS Copyright Reserved Bryan G Hall Ltd. E highways@bryanghall.co.uk Suite E15 Josephs Well Hanover Walk LEEDS LS3 1AB T 0113 246 1555 F 0113 234 2201 W www.bryanghall.co.uk Lighterman House 26/36 Wharfedale Road LONDON N1 9RY T 0203 553 2336		Title						
		PROPOSED GHOST ISLAND RIGHT TURN ISLAND						
Rev:	Amendment:	Drn:	Chk:	Date:				
Job No:	14-114	Drawn:	JT	Checked:	IE	Date:	05.12.17	
Scale:	1:500	Drawing No:		Revision:				
A3 - 420 x 297		14/114/TR/007						

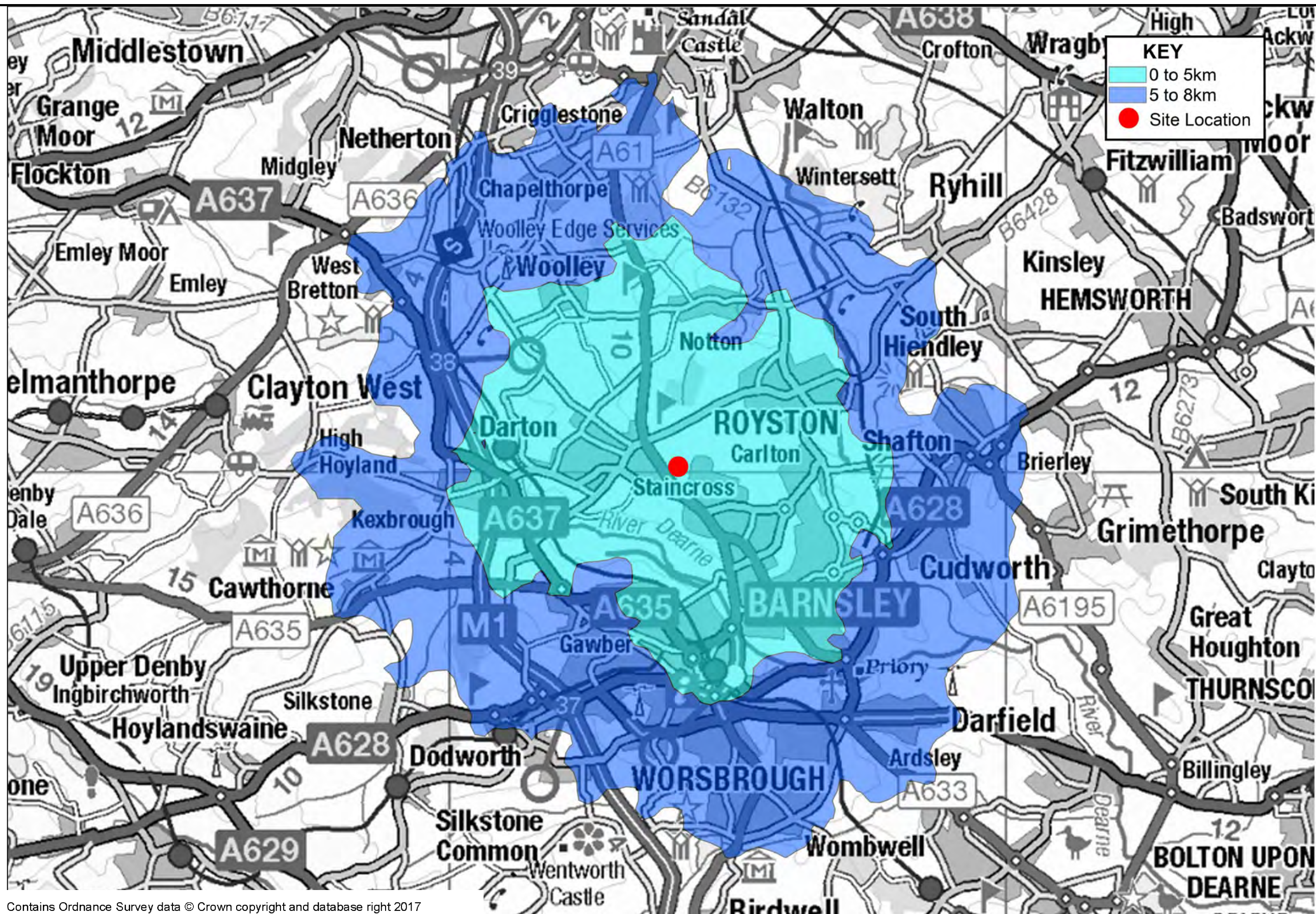
APPENDIX BGH 13



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Client:		Project:							
NETHERTON BUILDING AND CONSTRUCTION LTD		FORMER WILLIAM FREEMAN WORKS, WAKEFIELD ROAD, MAPPLEWELL							
BRYAN G HALL		highways@bryanghall.co.uk		www.bryanghall.co.uk		Rev:		Drn:	
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS		Suite E15 Josephs Well Hanover Walk LEEDS LS3 1AB		Lighterman House 26/36 Wharfedale Road LONDON N1 9RY		Amendment:		Chk:	
Copyright Reserved Bryan G Hall Ltd.		T 0113 246 1555 F 0113 234 2201		T 0203 553 2336		Job No: 14-114		Date: 07.12.17	
		Title		WALKING ACCESSIBILITY PLAN, 2KM		Scale: Not to Scale A3 - 420 x 297		Drawing No: 14/114/ACC/011	
								Revision:	

APPENDIX BGH 14



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Client:

NETHERTON BUILDING AND CONSTRUCTION LTD

Project:

FORMER WILLIAM FREEMAN WORKS,
WAKEFIELD ROAD, MAPPLEWELL

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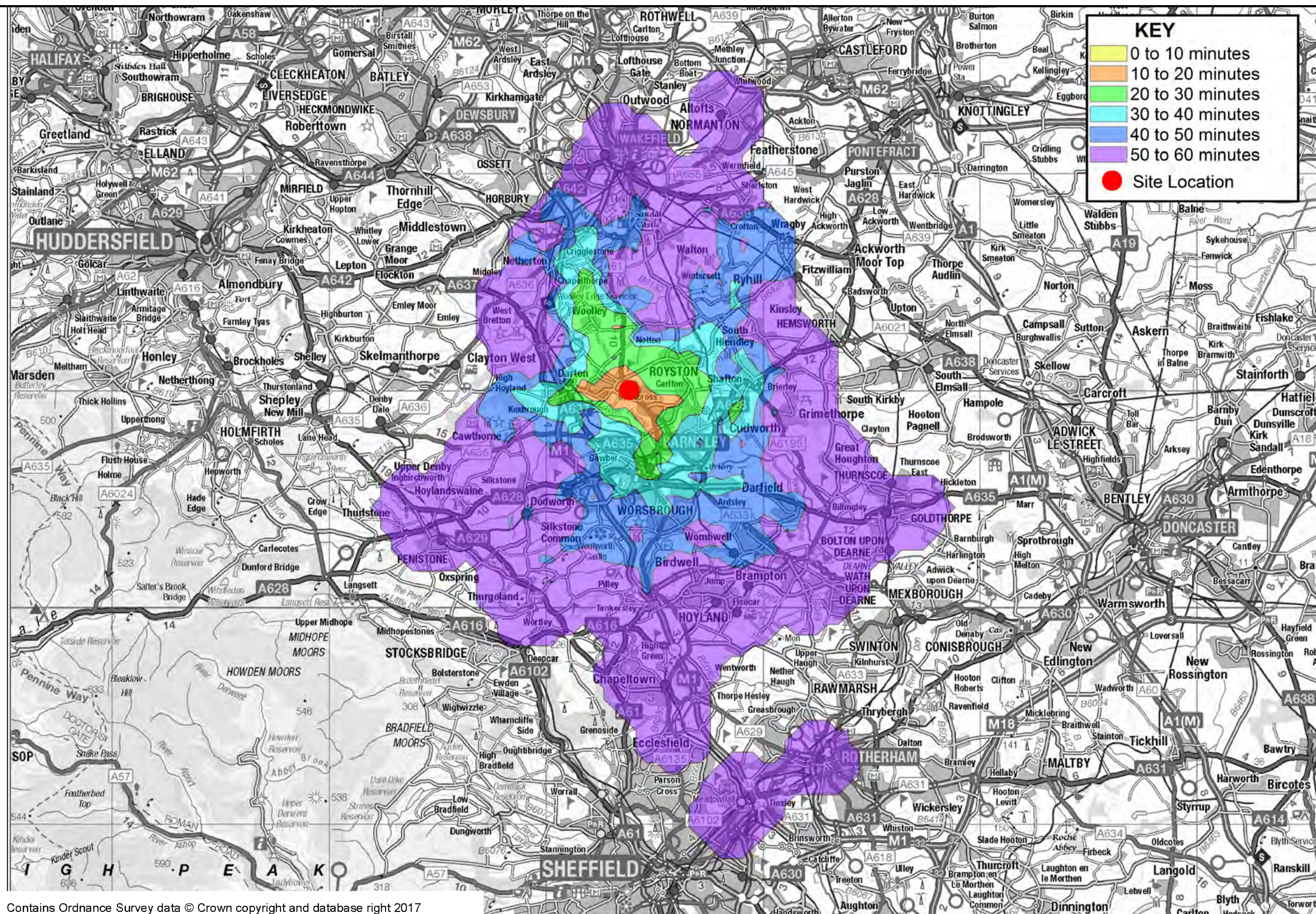
Lighterman House
26/36 Wharfedale Road
LONDON | N1 9RY
T 0203 553 2336

Title

CYCLING ACCESSIBILITY PLAN, 8KM

Rev:	Amendment:	Drn:	Chk:	Date:
Job No:	14-114	Drawn:	JT	Checked: MC
				Date: 07.12.17
Scale:	Not to Scale	Drawing No:	Revision:	
A3 - 420 x 297		14/114/ACC/002		

APPENDIX BGH 15



Client:

NETHERTON BUILDING AND CONSTRUCTION LTD

Project:

FORMER WILLIAM FREEMAN WORKS,
WAKEFIELD ROAD, MAPPLEWELL

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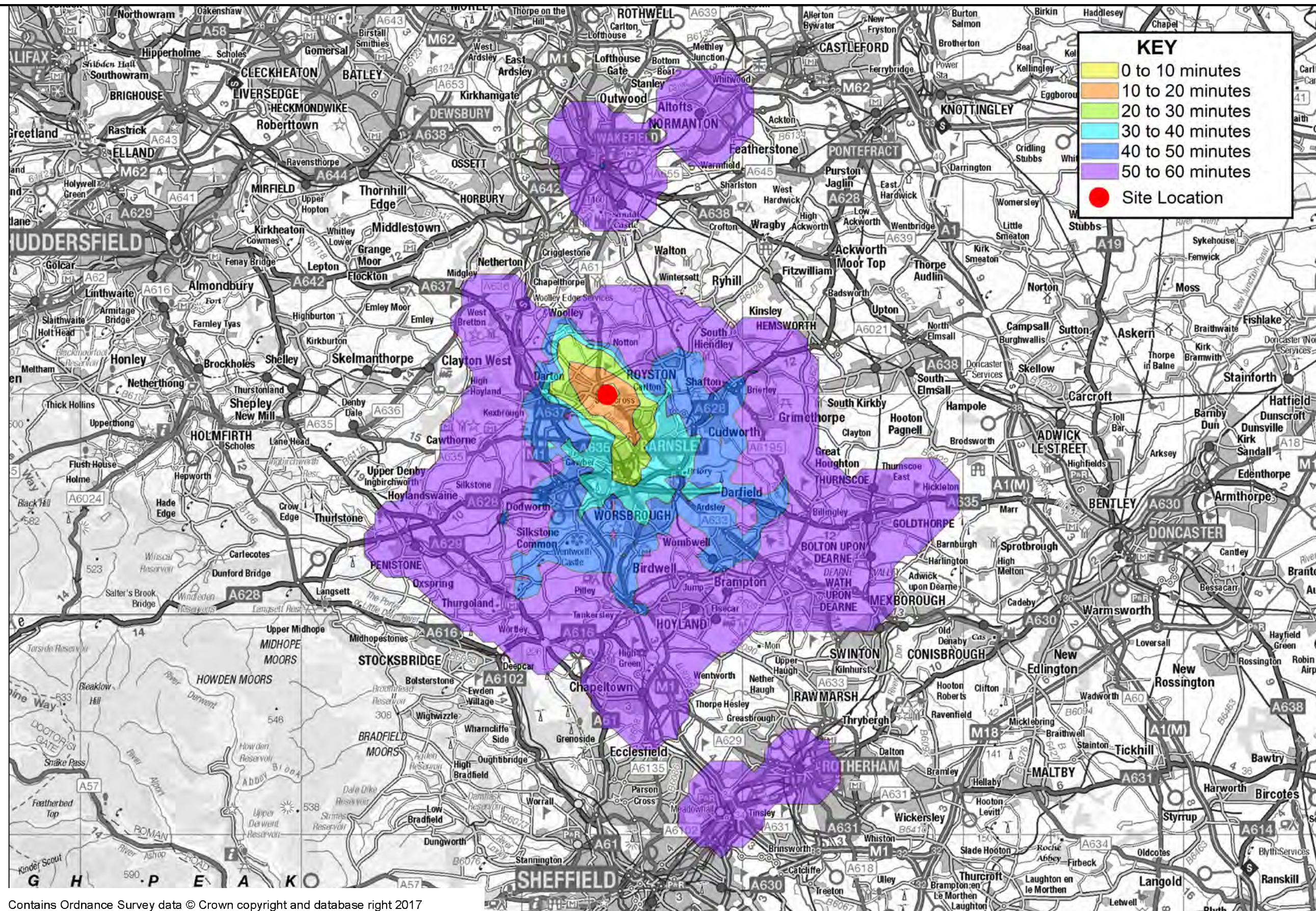
W www.bryanghall.co.uk

Lighterman House
26/36 Wharfedale Road
LONDON | N1 9RY
T 0203 553 2336

Title

PUBLIC TRANSPORT ACCESSIBILITY PLAN, 60 MINUTES,
AM PEAK

Rev:	Amendment:	Dwn:	Chk:	Date:
Job No:	14-114	Drawn:	JT	Checked:
			MC	Date:
				07.12.17
Scale:	Not to Scale	Drawing No:		Revision:
A3 - 420 x 297		14/114/ACC/003		



Client:

NETHERTON BUILDING AND CONSTRUCTION LTD

Project:

FORMER WILLIAM FREEMAN WORKS,
WAKEFIELD ROAD, MAPPLEWELL

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Lighterman House
26/36 Wharfedale Road
LONDON | N1 9RY
T 0203 553 2336

Title

PUBLIC TRANSPORT ACCESSIBILITY PLAN, 60 MINUTES,
PM PEAK

Rev:	Amendment:	Drn:	Chk:	Date:
Job No:	14-114	Drawn:	JT	Checked:
			MC	Date:
				07.12.17
Scale:	Not to Scale	Drawing No:	Revision:	
	A3 - 420 x 297		14/114/ACC/004	

APPENDIX BGH 16

Calculation Reference: AUDIT-604801-171124-1123

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	1 days
	SC SURREY	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DC DORSET	1 days
	DV DEVON	3 days
	SM SOMERSET	1 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	6 days
	SY SOUTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
09	NORTH	
	CB CUMBRIA	1 days
	DH DURHAM	1 days
10	WALES	
	PS POWYS	1 days
11	SCOTLAND	
	FA FALKIRK	1 days
	HI HIGHLAND	1 days
	PK PERTH & KINROSS	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 21 to 116 (units:)
Range Selected by User: 20 to 140 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 28/03/17

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	8 days
Tuesday	6 days
Wednesday	7 days
Thursday	6 days
Friday	4 days

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

Selected survey types:

Manual count	31 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)	20
Edge of Town	11

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

Selected Location Sub Categories:

Residential Zone	27
No Sub Category	4

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

Secondary Filtering selection:

Use Class:

C1	1 days
C3	30 days

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

Population within 1 mile:

1,001 to 5,000	5 days
5,001 to 10,000	8 days
10,001 to 15,000	6 days
15,001 to 20,000	5 days
20,001 to 25,000	4 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	6 days
25,001 to 50,000	4 days
50,001 to 75,000	3 days
75,001 to 100,000	8 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days
250,001 to 500,000	2 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	25 days

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

Travel Plan:

Yes	3 days
No	28 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	31 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	CA-03-A-05	DETACHED HOUSES	CAMBRIDGESHIRE
	EASTFIELD ROAD		
	PETERBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	28	
	Survey date: MONDAY	17/10/16	Survey Type: MANUAL
2	CB-03-A-04	SEMI DETACHED	CUMBRIA
	MOORCLOSE ROAD		
	SALTERBACK		
	WORKINGTON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	82	
	Survey date: FRIDAY	24/04/09	Survey Type: MANUAL
3	CH-03-A-09	TERRACED HOUSES	CHESHIRE
	GREYSTOKE ROAD		
	HURDSFIELD		
	MACCLESFIELD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	24	
	Survey date: MONDAY	24/11/14	Survey Type: MANUAL
4	DC-03-A-08	BUNGALOWS	DORSET
	HURSTDENE ROAD		
	CASTLE LANE WEST		
	BOURNEMOUTH		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	28	
	Survey date: MONDAY	24/03/14	Survey Type: MANUAL
5	DH-03-A-01	SEMI DETACHED	DURHAM
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
6	DV-03-A-01	TERRACED HOUSES	DEVON
	BRONSHILL ROAD		
	TORQUAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	37	
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL
7	DV-03-A-02	HOUSES & BUNGALOWS	DEVON
	MILLHEAD ROAD		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL
8	DV-03-A-03	TERRACED & SEMI DETACHED	DEVON
	LOWER BRAND LANE		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	ES-03-A-02	PRIVATE HOUSING	EAST SUSSEX
	SOUTH COAST ROAD		
	PEACEHAVEN		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	37	
	Survey date: FRIDAY	18/11/11	Survey Type: MANUAL
10	FA-03-A-01	SEMI-DETACHED / TERRACED	FALKIRK
	MANDELA AVENUE		
	FALKIRK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	37	
	Survey date: THURSDAY	30/05/13	Survey Type: MANUAL
11	GM-03-A-10	DETACHED / SEMI	GREATER MANCHESTER
	BUTT HILL DRIVE		
	PRESTWICH		
	MANCHESTER		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	29	
	Survey date: WEDNESDAY	12/10/11	Survey Type: MANUAL
12	HC-03-A-18	HOUSES & FLATS	HAMPSHIRE
	CANADA WAY		
	LIPHOOK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	62	
	Survey date: TUESDAY	29/11/16	Survey Type: MANUAL
13	HI-03-A-14	SEMI-DETACHED & TERRACED	HIGHLAND
	KING BRUDE ROAD		
	SCORGUIE		
	INVERNESS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	40	
	Survey date: WEDNESDAY	23/03/16	Survey Type: MANUAL
14	LN-03-A-03	SEMI DETACHED	LINCOLNSHIRE
	ROOKERY LANE		
	BOULTHAM		
	LINCOLN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	22	
	Survey date: TUESDAY	18/09/12	Survey Type: MANUAL
15	NF-03-A-01	SEMI DET. & BUNGALOWS	NORFOLK
	YARMOUTH ROAD		
	CAISTER-ON-SEA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	27	
	Survey date: TUESDAY	16/10/12	Survey Type: MANUAL
16	NF-03-A-02	HOUSES & FLATS	NORFOLK
	DEREHAM ROAD		
	NORWICH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	98	
	Survey date: MONDAY	22/10/12	Survey Type: MANUAL
17	NY-03-A-06	BUNGALOWS & SEMI DET.	NORTH YORKSHIRE
	HORSEFAIR		
	BOROUGHBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	115	
	Survey date: FRIDAY	14/10/11	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

18	NY-03-A-07	DETACHED & SEMI DET.		NORTH YORKSHIRE
	CRAVEN WAY			
	BOROUGHBRIDGE			
	Edge of Town			
	No Sub Category			
	Total Number of dwellings:	23		
	Survey date: TUESDAY	18/10/11		Survey Type: MANUAL
19	NY-03-A-08	TERRACED HOUSES		NORTH YORKSHIRE
	NICHOLAS STREET			
	YORK			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	21		
	Survey date: MONDAY	16/09/13		Survey Type: MANUAL
20	NY-03-A-09	MIXED HOUSING		NORTH YORKSHIRE
	GRAMMAR SCHOOL LANE			
	NORTHALLERTON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	52		
	Survey date: MONDAY	16/09/13		Survey Type: MANUAL
21	NY-03-A-10	HOUSES AND FLATS		NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD			
	RIPON			
	Edge of Town			
	No Sub Category			
	Total Number of dwellings:	71		
	Survey date: TUESDAY	17/09/13		Survey Type: MANUAL
22	NY-03-A-11	PRIVATE HOUSING		NORTH YORKSHIRE
	HORSEFAIR			
	BOROUGHBRIDGE			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	23		
	Survey date: WEDNESDAY	18/09/13		Survey Type: MANUAL
23	PK-03-A-01	DETAC. & BUNGALOWS		PERTH & KINROSS
	TULLYLUMB TERRACE			
	GORNHILL			
	PERTH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	36		
	Survey date: WEDNESDAY	11/05/11		Survey Type: MANUAL
24	PS-03-A-02	DETACHED / SEMI-DETACHED		POWYS
	GUNROG ROAD			
	WELSHPOOL			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	28		
	Survey date: MONDAY	11/05/15		Survey Type: MANUAL
25	SC-03-A-04	DETACHED & TERRACED		SURREY
	HIGH ROAD			
	BYFLEET			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	71		
	Survey date: THURSDAY	23/01/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

26	SH-03-A-04	TERRACED		SHROPSHIRE
	ST MICHAEL'S STREET			
	SHREWSBURY			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of dwellings:	108		
	Survey date: THURSDAY	11/06/09		Survey Type: MANUAL
27	SH-03-A-05	SEMI-DETACHED / TERRACED		SHROPSHIRE
	SANDCROFT			
	SUTTON HILL			
	TELFORD			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	54		
	Survey date: THURSDAY	24/10/13		Survey Type: MANUAL
28	SM-03-A-01	DETACHED & SEMI		SOMERSET
	WEMBDON ROAD			
	NORTHFIELD			
	BRIDGWATER			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	33		
	Survey date: THURSDAY	24/09/15		Survey Type: MANUAL
29	SY-03-A-01	SEMI DETACHED HOUSES		SOUTH YORKSHIRE
	A19 BENTLEY ROAD			
	BENTLEY RISE			
	DONCASTER			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	54		
	Survey date: WEDNESDAY	18/09/13		Survey Type: MANUAL
30	WL-03-A-02	SEMI DETACHED		WILTSHIRE
	HEADLANDS GROVE			
	SWINDON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	27		
	Survey date: THURSDAY	22/09/16		Survey Type: MANUAL
31	WS-03-A-05	TERRACED & FLATS		WEST SUSSEX
	UPPER SHOREHAM ROAD			
	SHOREHAM BY SEA			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	48		
	Survey date: WEDNESDAY	18/04/12		Survey Type: MANUAL

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

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	31	50	0.074	31	50	0.285	31	50	0.359
08:00 - 09:00	31	50	0.156	31	50	0.384	31	50	0.540
09:00 - 10:00	31	50	0.155	31	50	0.173	31	50	0.328
10:00 - 11:00	31	50	0.141	31	50	0.163	31	50	0.304
11:00 - 12:00	31	50	0.157	31	50	0.161	31	50	0.318
12:00 - 13:00	31	50	0.167	31	50	0.164	31	50	0.331
13:00 - 14:00	31	50	0.170	31	50	0.165	31	50	0.335
14:00 - 15:00	31	50	0.157	31	50	0.190	31	50	0.347
15:00 - 16:00	31	50	0.236	31	50	0.158	31	50	0.394
16:00 - 17:00	31	50	0.290	31	50	0.181	31	50	0.471
17:00 - 18:00	31	50	0.355	31	50	0.175	31	50	0.530
18:00 - 19:00	31	50	0.228	31	50	0.146	31	50	0.374
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.286			2.345			4.631

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:	21 - 116 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	31
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 TAXIS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	31	50	0.003	31	50	0.003	31	50	0.006
08:00 - 09:00	31	50	0.004	31	50	0.004	31	50	0.008
09:00 - 10:00	31	50	0.006	31	50	0.005	31	50	0.011
10:00 - 11:00	31	50	0.001	31	50	0.002	31	50	0.003
11:00 - 12:00	31	50	0.002	31	50	0.002	31	50	0.004
12:00 - 13:00	31	50	0.002	31	50	0.001	31	50	0.003
13:00 - 14:00	31	50	0.002	31	50	0.003	31	50	0.005
14:00 - 15:00	31	50	0.002	31	50	0.002	31	50	0.004
15:00 - 16:00	31	50	0.003	31	50	0.003	31	50	0.006
16:00 - 17:00	31	50	0.003	31	50	0.003	31	50	0.006
17:00 - 18:00	31	50	0.002	31	50	0.001	31	50	0.003
18:00 - 19:00	31	50	0.002	31	50	0.003	31	50	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.032			0.032			0.064

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:	21 - 116 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	31
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 OGVS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	31	50	0.000	31	50	0.000	31	50	0.000
08:00 - 09:00	31	50	0.002	31	50	0.001	31	50	0.003
09:00 - 10:00	31	50	0.002	31	50	0.003	31	50	0.005
10:00 - 11:00	31	50	0.003	31	50	0.001	31	50	0.004
11:00 - 12:00	31	50	0.003	31	50	0.003	31	50	0.006
12:00 - 13:00	31	50	0.003	31	50	0.002	31	50	0.005
13:00 - 14:00	31	50	0.003	31	50	0.004	31	50	0.007
14:00 - 15:00	31	50	0.001	31	50	0.003	31	50	0.004
15:00 - 16:00	31	50	0.001	31	50	0.001	31	50	0.002
16:00 - 17:00	31	50	0.001	31	50	0.001	31	50	0.002
17:00 - 18:00	31	50	0.001	31	50	0.001	31	50	0.002
18:00 - 19:00	31	50	0.000	31	50	0.000	31	50	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.020			0.020			0.040

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:	21 - 116 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	31
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	31	50	0.000	31	50	0.000	31	50	0.000
08:00 - 09:00	31	50	0.002	31	50	0.002	31	50	0.004
09:00 - 10:00	31	50	0.000	31	50	0.000	31	50	0.000
10:00 - 11:00	31	50	0.000	31	50	0.000	31	50	0.000
11:00 - 12:00	31	50	0.001	31	50	0.001	31	50	0.002
12:00 - 13:00	31	50	0.000	31	50	0.000	31	50	0.000
13:00 - 14:00	31	50	0.000	31	50	0.000	31	50	0.000
14:00 - 15:00	31	50	0.001	31	50	0.001	31	50	0.002
15:00 - 16:00	31	50	0.001	31	50	0.001	31	50	0.002
16:00 - 17:00	31	50	0.000	31	50	0.000	31	50	0.000
17:00 - 18:00	31	50	0.000	31	50	0.000	31	50	0.000
18:00 - 19:00	31	50	0.000	31	50	0.000	31	50	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.005			0.010

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Parameter summary

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Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	31
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	31	50	0.005	31	50	0.019	31	50	0.024
08:00 - 09:00	31	50	0.002	31	50	0.021	31	50	0.023
09:00 - 10:00	31	50	0.001	31	50	0.008	31	50	0.009
10:00 - 11:00	31	50	0.004	31	50	0.008	31	50	0.012
11:00 - 12:00	31	50	0.003	31	50	0.003	31	50	0.006
12:00 - 13:00	31	50	0.006	31	50	0.006	31	50	0.012
13:00 - 14:00	31	50	0.006	31	50	0.003	31	50	0.009
14:00 - 15:00	31	50	0.003	31	50	0.006	31	50	0.009
15:00 - 16:00	31	50	0.017	31	50	0.003	31	50	0.020
16:00 - 17:00	31	50	0.015	31	50	0.003	31	50	0.018
17:00 - 18:00	31	50	0.023	31	50	0.008	31	50	0.031
18:00 - 19:00	31	50	0.009	31	50	0.005	31	50	0.014
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.094			0.093			0.187

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.

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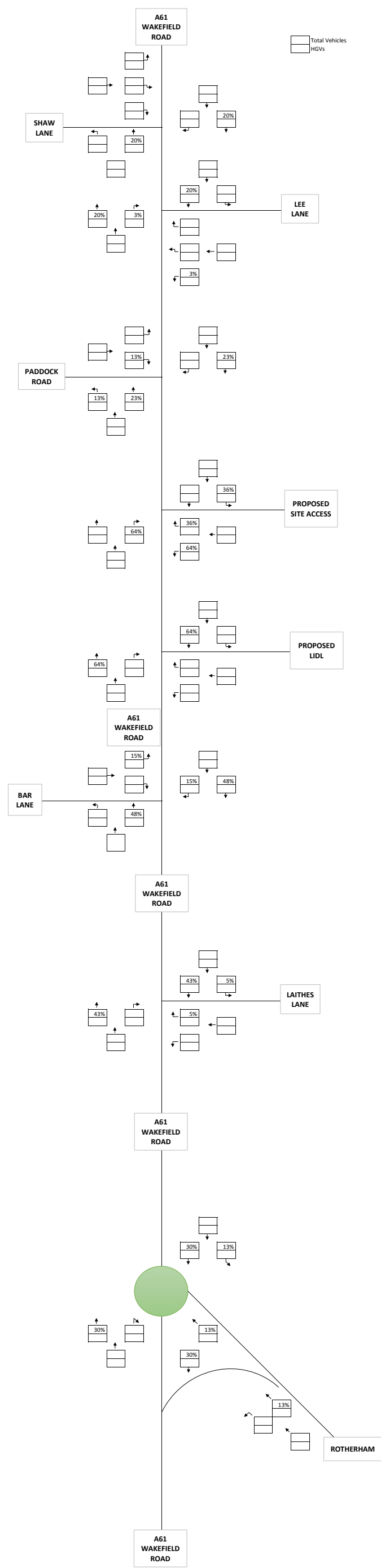
Parameter summary

Trip rate parameter range selected:	21 - 116 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	31
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

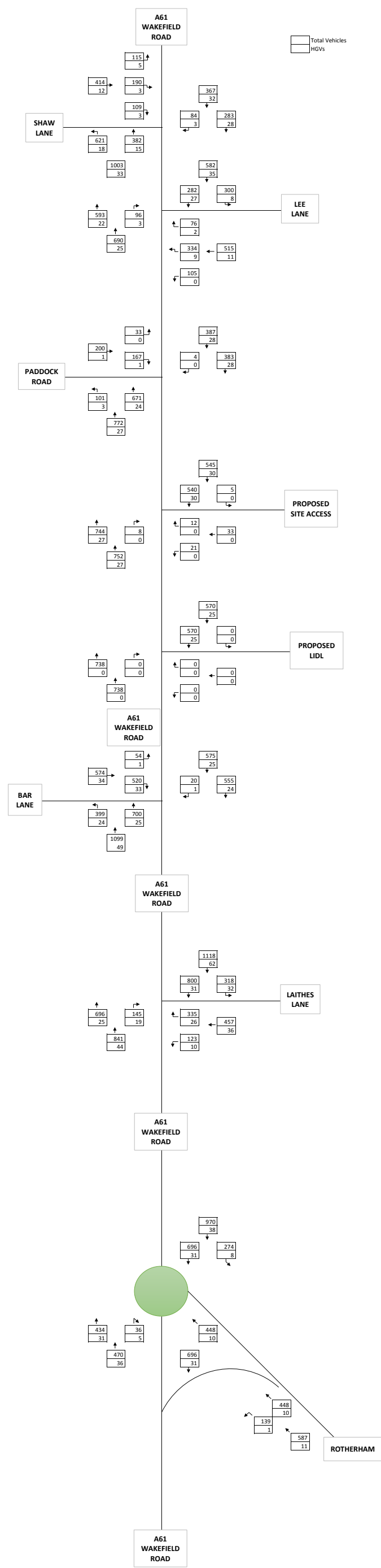
APPENDIX BGH 17

TRIP DISTRIBUTION
PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL

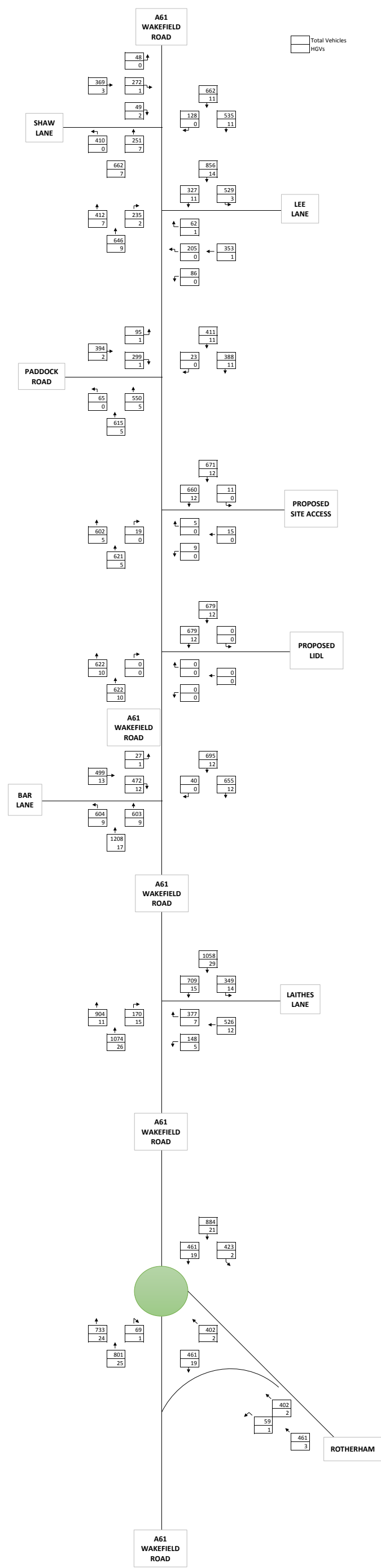


APPENDIX BGH 18

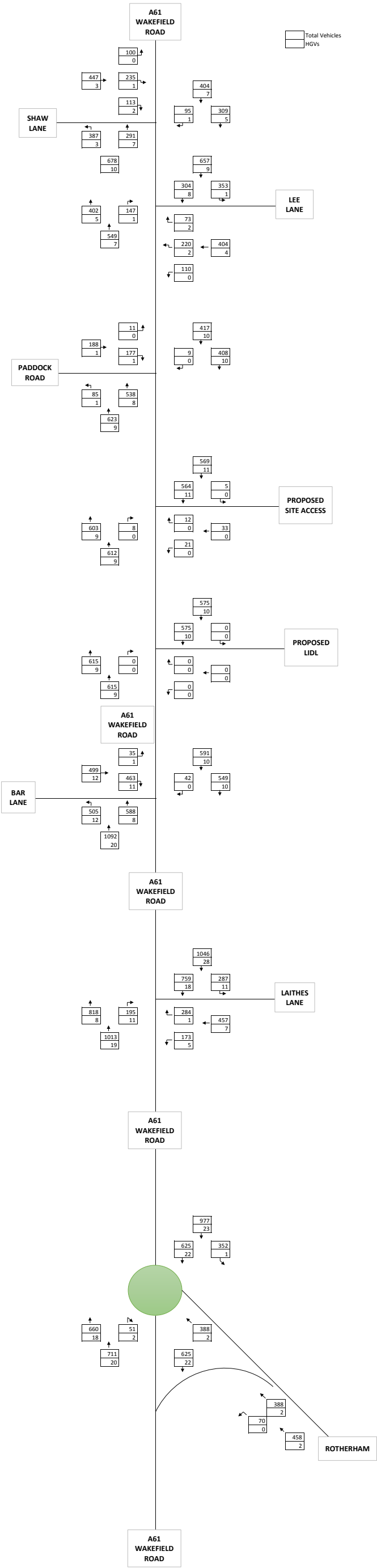
2023 PREDICTED FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL
07:45 - 08:45
AM PEAK



2023 PREDICTED FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL
16:45 - 17:45
PM PEAK

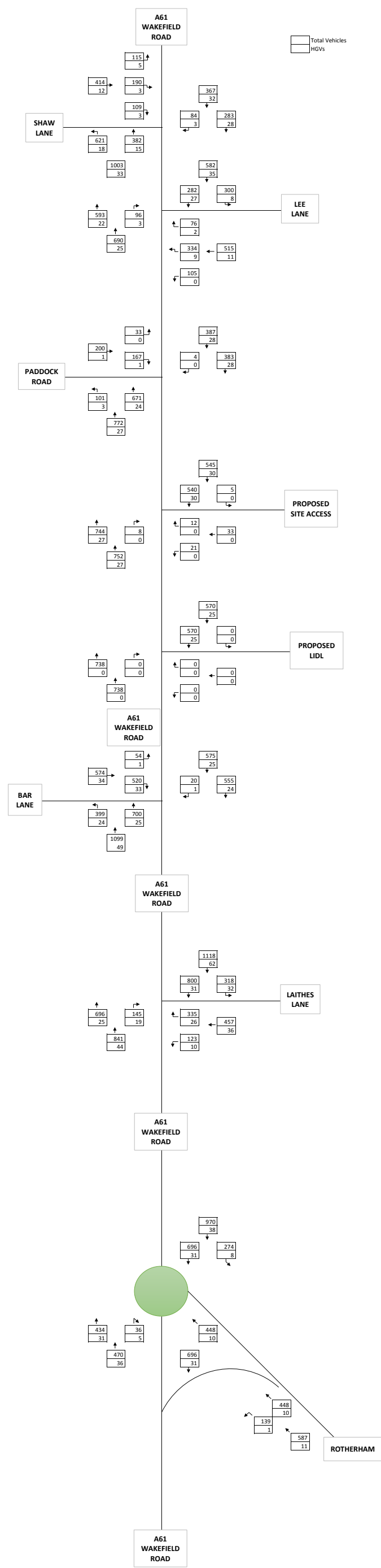


2023 PREDICTED FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL
11:45 - 12:45
SATURDAY PEAK

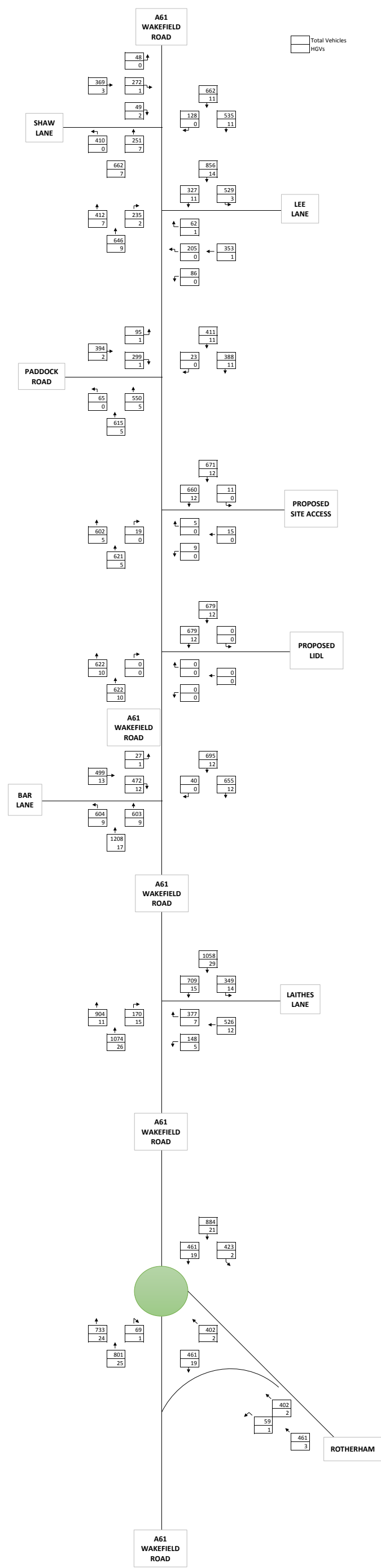


APPENDIX BGH 19

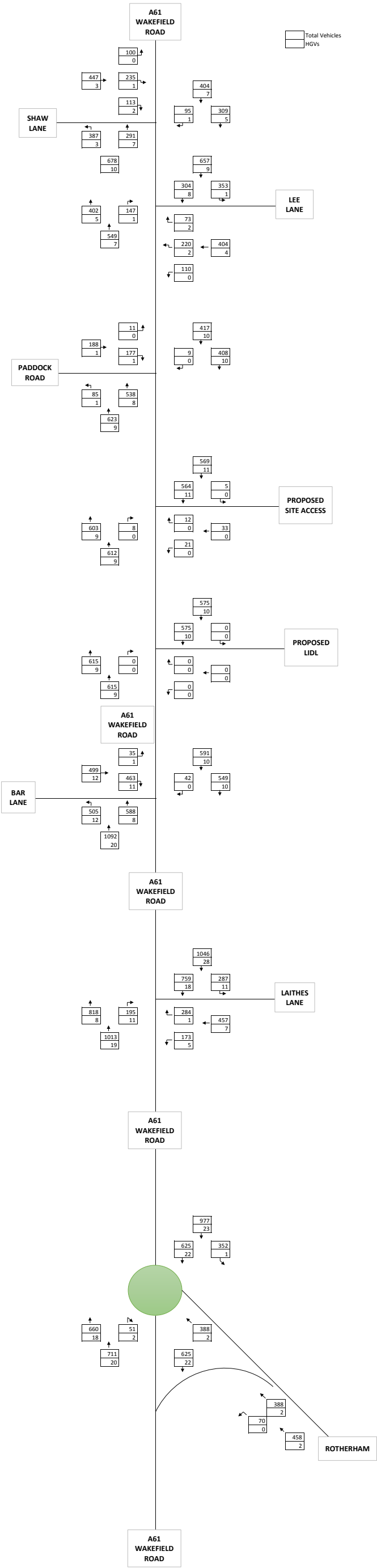
2023 PREDICTED FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL
07:45 - 08:45
AM PEAK



2023 PREDICTED FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL
16:45 - 17:45
PM PEAK



2023 PREDICTED FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, WAKEFIELD ROAD, MAPPLEWELL
11:45 - 12:45
SATURDAY PEAK



APPENDIX BGH 20

Junctions 8				
PICADY 8 - Priority Intersection Module				
Version: 8.0.5.523 [19102,19/06/2015] © Copyright TRL Limited, 2018				
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk				
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: Wakefield Road - Lee Lane - Shaw Lane - Committed Scheme.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Wakefield Road - Lee Lane - Shaw Lane Committed Scheme

Report generation date: 08/01/2018 08:09:47

« Committed Layout - 2023 Predicted, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
Committed Layout - 2023 Predicted				
Stream B-C	0.57	15.92	0.37	C
Stream B-AD	42.12	542.62	1.33	F
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.28	9.29	0.22	A
Stream D-A	0.36	11.37	0.27	B
Stream D-BC	117.36	1215.28	1.64	F
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.35	13.34	0.26	B

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

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 11:30 - 13:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 11:30 - 13:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 08:09:46

File summary

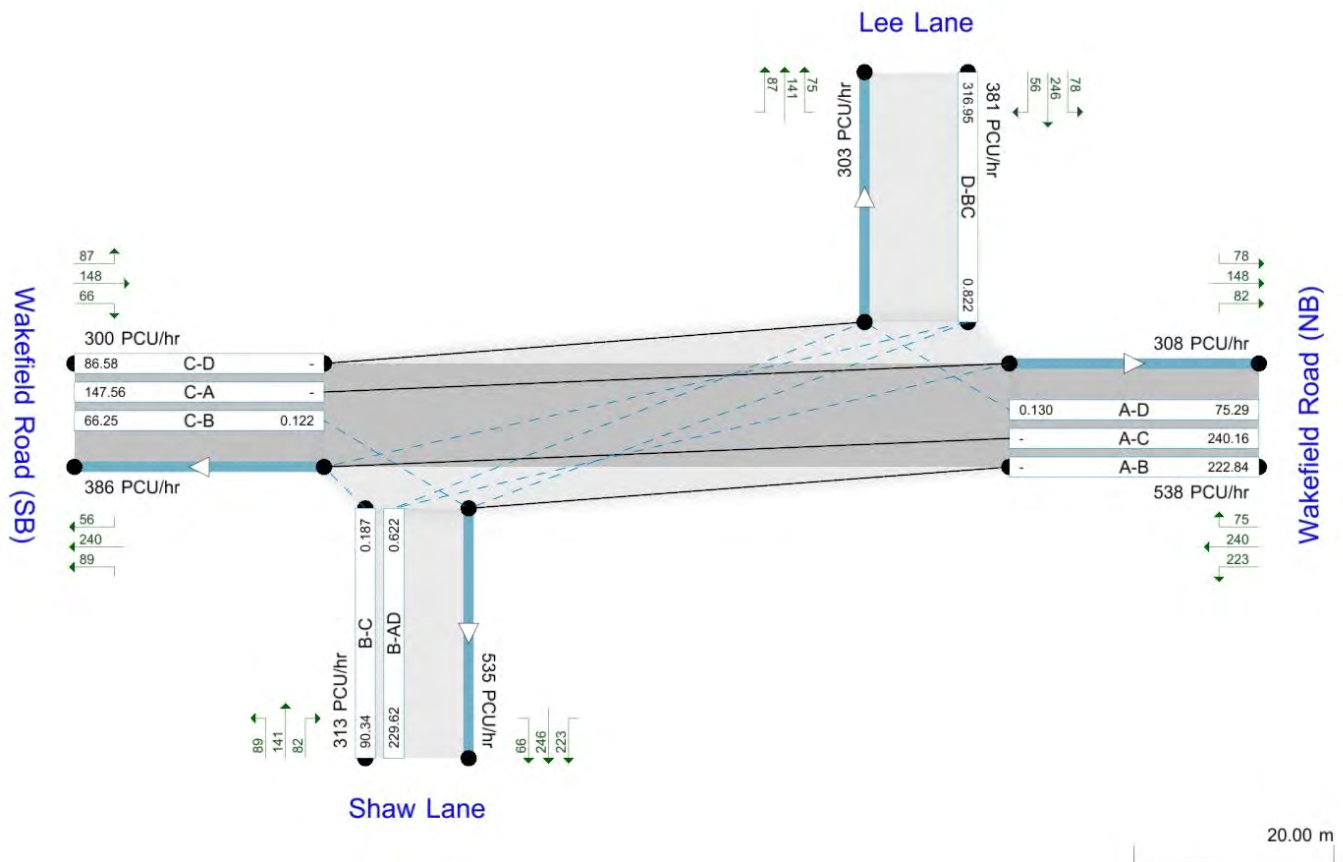
Title	Mapplewell, Barnsley
Location	Wakefield Road, Lee Lane, Shaw Lane Stagger
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	BRYANGHALL\JTurner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show R/C (I)
Time Segment: (07:30-07:45)
Showing Analysis Set "A1 - Committed Layout"; Demand Set "D7 - 2023 Predicted, AM"

The junction diagram reflects the last run of ARCADY.

Committed Layout - 2023 Predicted, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Committed Layout	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, AM	2023 Predicted	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Wakefield Road - Lee Lane - Shaw Lane	OS-NS Stagger (UK RL Stagger)	Two-way	A,B,C,D	599.07	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road (NB)	A	Wakefield Road (NB)		Major
Shaw Lane	B	Shaw Lane		Minor
Wakefield Road (SB)	C	Wakefield Road (SB)		Major
Lee Lane	D	Lee Lane		Minor

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road (NB)	6.00		0.00	✓	3.00	130.00		
Wakefield Road (SB)	6.00		0.00	✓	3.00	250.00		

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Shaw Lane	Two lanes		3.90	3.85						✓		55	35
Lee Lane	Two lanes		3.88	4.06						✓		40	65

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	705.776	-	-	-	0.273	0.273	0.273	-	0.273	-	-
1	B-AD	556.295	0.101	0.256	-	-	-	0.161	0.366	0.161	0.101	0.256
1	B-C	704.176	0.108	0.273	-	-	-	-	-	-	0.108	0.273
1	C-B	781.320	0.303	0.303	-	-	-	-	-	-	0.303	0.303
1	D-A	723.432	-	-	-	0.280	0.111	0.280	-	0.111	-	-
1	D-BC	578.082	0.167	0.167	0.380	0.266	0.105	0.266	-	0.105	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road (NB)	ONE HOUR	✓	715.00	100.000
Shaw Lane	ONE HOUR	✓	425.00	100.000
Wakefield Road (SB)	ONE HOUR	✓	399.00	100.000
Lee Lane	ONE HOUR	✓	526.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.000	296.000	319.000	100.000
	Shaw Lane	112.000	0.000	120.000	193.000
	Wakefield Road (SB)	196.000	88.000	0.000	115.000
	Lee Lane	105.000	343.000	78.000	0.000

Turning Proportions (PCU) - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.00	0.41	0.45	0.14
	Shaw Lane	0.26	0.00	0.28	0.45
	Wakefield Road (SB)	0.49	0.22	0.00	0.29
	Lee Lane	0.20	0.65	0.15	0.00

Vehicle Mix

Average PCU Per Vehicle - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	1.000	1.010	1.022	1.000
	Shaw Lane	1.010	1.000	1.000	1.006
	Wakefield Road (SB)	1.028	1.000	1.000	1.000
	Lee Lane	1.000	1.010	1.000	1.000

Heavy Vehicle Percentages - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.0	1.0	2.2	0.0
	Shaw Lane	1.0	0.0	0.0	0.6
	Wakefield Road (SB)	2.8	0.0	0.0	0.0
	Lee Lane	0.0	1.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.37	15.92	0.57	C
B-AD	1.33	542.62	42.12	F
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.22	9.29	0.28	A
D-A	0.27	11.37	0.36	B
D-BC	1.64	1215.28	117.36	F
C-D	-	-	-	-
C-A	-	-	-	-
C-B	0.26	13.34	0.35	B

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	90.34	89.43	0.00	481.93	0.187	0.23	9.151	A
B-AD	229.62	223.44	0.00	369.05	0.622	1.55	24.009	C
A-B	222.84	222.84	0.00	-	-	-	-	-
A-C	240.16	240.16	0.00	-	-	-	-	-
A-D	75.29	74.69	0.00	578.96	0.130	0.15	7.134	A
D-A	79.05	78.31	0.00	502.78	0.157	0.18	8.467	A
D-BC	316.95	302.34	0.00	385.82	0.822	3.65	38.639	E
C-D	86.58	86.58	0.00	-	-	-	-	-
C-A	147.56	147.56	0.00	-	-	-	-	-
C-B	66.25	65.70	0.00	545.21	0.122	0.14	7.500	A

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	107.88	107.46	0.00	427.70	0.252	0.33	11.227	B
B-AD	274.19	265.43	0.00	330.61	0.829	3.74	49.915	E
A-B	266.10	266.10	0.00	-	-	-	-	-
A-C	286.77	286.77	0.00	-	-	-	-	-
A-D	89.90	89.72	0.00	552.65	0.163	0.19	7.776	A
D-A	94.39	94.11	0.00	460.54	0.205	0.25	9.825	A
D-BC	378.47	332.81	0.00	347.26	1.090	15.07	128.780	F
C-D	103.38	103.38	0.00	-	-	-	-	-
C-A	176.20	176.20	0.00	-	-	-	-	-
C-B	79.11	78.91	0.00	494.96	0.160	0.19	8.648	A

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	132.12	131.33	0.00	375.48	0.352	0.53	14.697	B
B-AD	335.81	267.39	0.00	274.34	1.224	20.84	197.235	F
A-B	325.90	325.90	0.00	-	-	-	-	-
A-C	351.23	351.23	0.00	-	-	-	-	-
A-D	110.10	109.80	0.00	516.22	0.213	0.27	8.851	A
D-A	115.61	115.23	0.00	441.14	0.262	0.35	11.032	B
D-BC	463.53	293.39	0.00	294.15	1.576	57.60	475.140	F
C-D	126.62	126.62	0.00	-	-	-	-	-
C-A	215.80	215.80	0.00	-	-	-	-	-
C-B	96.89	96.45	0.00	417.77	0.232	0.30	11.186	B

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	132.12	131.95	0.00	357.80	0.369	0.57	15.921	C
B-AD	335.81	251.16	0.00	252.07	1.332	42.00	459.721	F
A-B	325.90	325.90	0.00	-	-	-	-	-
A-C	351.23	351.23	0.00	-	-	-	-	-
A-D	110.10	110.05	0.00	497.51	0.221	0.28	9.290	A
D-A	115.61	115.56	0.00	432.26	0.267	0.36	11.367	B
D-BC	463.53	282.67	0.00	282.79	1.639	102.82	966.422	F
C-D	126.62	126.62	0.00	-	-	-	-	-
C-A	215.80	215.80	0.00	-	-	-	-	-
C-B	96.89	96.67	0.00	366.26	0.265	0.35	13.340	B

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	107.88	108.46	0.00	365.88	0.295	0.43	14.019	B
B-AD	274.19	273.72	0.00	278.73	0.984	42.12	542.621	F
A-B	266.10	266.10	0.00	-	-	-	-	-
A-C	286.77	286.77	0.00	-	-	-	-	-
A-D	89.90	90.15	0.00	508.40	0.177	0.22	8.614	A
D-A	94.39	94.73	0.00	439.53	0.215	0.28	10.450	B
D-BC	378.47	320.30	0.00	320.46	1.181	117.36	1215.284	F
C-D	103.38	103.38	0.00	-	-	-	-	-
C-A	176.20	176.20	0.00	-	-	-	-	-
C-B	79.11	79.44	0.00	374.88	0.211	0.27	12.198	B

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	90.34	90.78	0.00	379.27	0.238	0.32	12.499	B
B-AD	229.62	300.44	0.00	307.63	0.746	24.42	403.755	F
A-B	222.84	222.84	0.00	-	-	-	-	-
A-C	240.16	240.16	0.00	-	-	-	-	-
A-D	75.29	75.49	0.00	532.89	0.141	0.17	7.875	A
D-A	79.05	79.30	0.00	452.67	0.175	0.21	9.648	A
D-BC	316.95	354.75	0.00	357.80	0.886	107.91	1143.587	F
C-D	86.58	86.58	0.00	-	-	-	-	-
C-A	147.56	147.56	0.00	-	-	-	-	-
C-B	66.25	66.54	0.00	403.10	0.164	0.20	10.705	B

Junctions 8				
PICADY 8 - Priority Intersection Module				
Version: 8.0.5.523 [19102,19/06/2015] © Copyright TRL Limited, 2018				
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Filename: Wakefield Road - Lee Lane - Shaw Lane - Committed Scheme.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Wakefield Road - Lee Lane - Shaw Lane Committed Scheme

Report generation date: 08/01/2018 08:10:22

« Committed Layout - 2023 Predicted, PM

» Junction Network

» Arms

» Traffic Flows

» Entry Flows

» Turning Proportions

» Vehicle Mix

» Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
Committed Layout - 2023 Predicted				
Stream B-C	0.14	9.66	0.12	A
Stream B-AD	42.83	454.29	1.28	F
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	1.58	22.54	0.62	C
Stream D-A	0.30	11.55	0.23	B
Stream D-BC	34.84	419.64	1.28	F
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.35	9.10	0.26	A

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

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 11:30 - 13:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM " model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 11:30 - 13:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 08:10:21

File summary

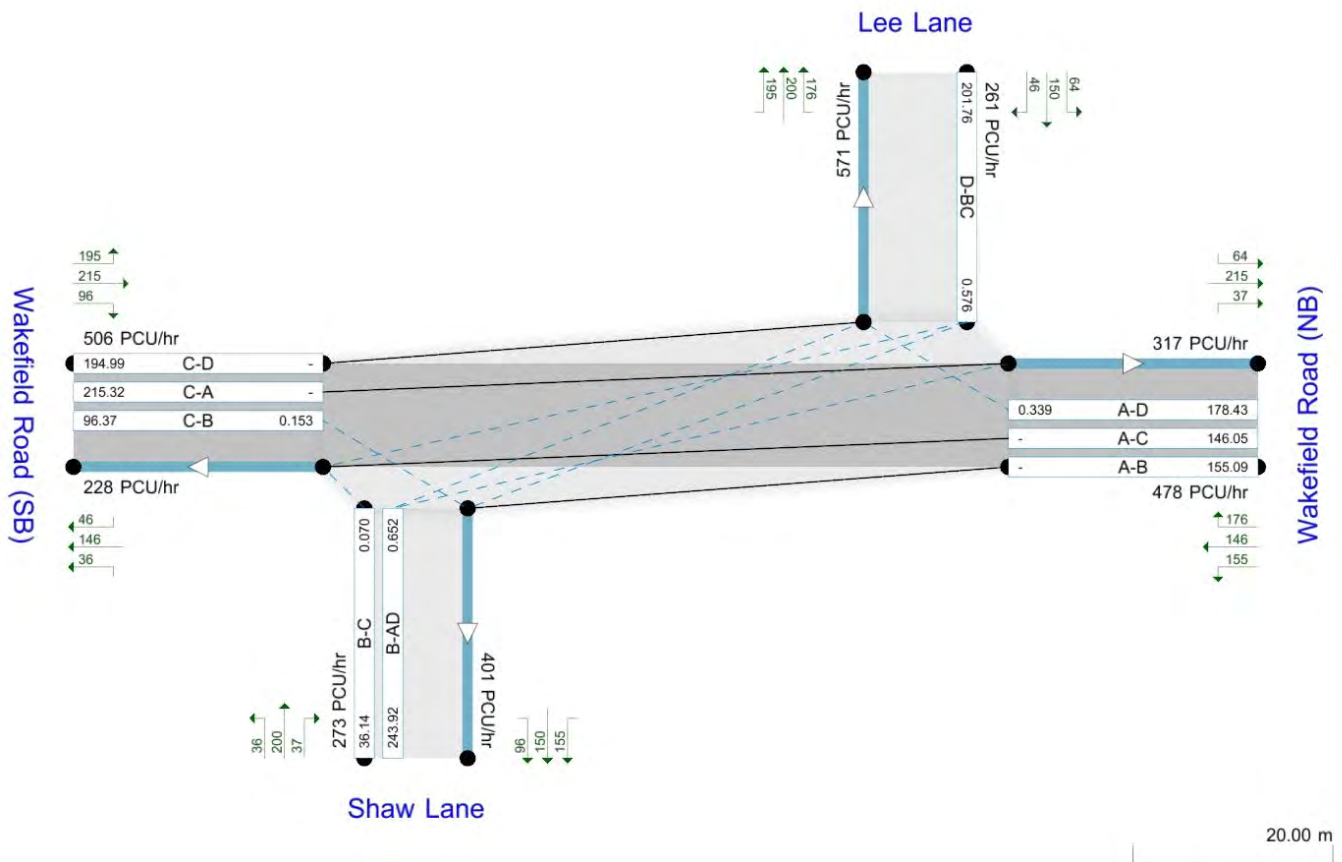
Title	Mapplewell, Barnsley
Location	Wakefield Road, Lee Lane, Shaw Lane Stagger
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	BRYANGHALL\JTurner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RfC (I)
Time Segment: (16:30-16:45)
Showing Analysis Set "A1 - Committed Layout"; Demand Set "D8 - 2023 Predicted, PM"

The junction diagram reflects the last run of ARCADY.

Committed Layout - 2023 Predicted, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Committed Layout	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, PM	2023 Predicted	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Wakefield Road - Lee Lane - Shaw Lane	OS-NS Stagger (UK RL Stagger)	Two-way	A,B,C,D	245.30	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road (NB)	A	Wakefield Road (NB)		Major
Shaw Lane	B	Shaw Lane		Minor
Wakefield Road (SB)	C	Wakefield Road (SB)		Major
Lee Lane	D	Lee Lane		Minor

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road (NB)	6.00		0.00	✓	3.00	130.00		
Wakefield Road (SB)	6.00		0.00	✓	3.00	250.00		

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Shaw Lane	Two lanes		3.90	3.85						✓		55	35
Lee Lane	Two lanes		3.88	4.06						✓		40	65

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	705.776	-	-	-	0.273	0.273	0.273	-	0.273	-	-
1	B-AD	556.295	0.101	0.256	-	-	-	0.161	0.366	0.161	0.101	0.256
1	B-C	704.176	0.108	0.273	-	-	-	-	-	-	0.108	0.273
1	C-B	781.320	0.303	0.303	-	-	-	-	-	-	0.303	0.303
1	D-A	723.432	-	-	-	0.280	0.111	0.280	-	0.111	-	-
1	D-BC	578.082	0.167	0.167	0.380	0.266	0.105	0.266	-	0.105	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road (NB)	ONE HOUR	✓	637.00	100.000
Shaw Lane	ONE HOUR	✓	372.00	100.000
Wakefield Road (SB)	ONE HOUR	✓	673.00	100.000
Lee Lane	ONE HOUR	✓	354.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.000	206.000	194.000	237.000
	Shaw Lane	51.000	0.000	48.000	273.000
	Wakefield Road (SB)	286.000	128.000	0.000	259.000
	Lee Lane	86.000	205.000	63.000	0.000

Turning Proportions (PCU) - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.00	0.32	0.30	0.37
	Shaw Lane	0.14	0.00	0.13	0.73
	Wakefield Road (SB)	0.42	0.19	0.00	0.38
	Lee Lane	0.24	0.58	0.18	0.00

Vehicle Mix

Average PCU Per Vehicle - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	1.000	1.010	1.022	1.000
	Shaw Lane	1.010	1.000	1.000	1.006
	Wakefield Road (SB)	1.028	1.000	1.000	1.000
	Lee Lane	1.000	1.010	1.000	1.000

Heavy Vehicle Percentages - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.0	1.0	2.2	0.0
	Shaw Lane	1.0	0.0	0.0	0.6
	Wakefield Road (SB)	2.8	0.0	0.0	0.0
	Lee Lane	0.0	1.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	9.66	0.14	A
B-AD	1.28	454.29	42.83	F
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.62	22.54	1.58	C
D-A	0.23	11.55	0.30	B
D-BC	1.28	419.64	34.84	F
C-D	-	-	-	-
C-A	-	-	-	-
C-B	0.26	9.10	0.35	A

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	36.14	35.84	0.00	517.23	0.070	0.07	7.473	A
B-AD	243.92	236.96	0.00	374.03	0.652	1.74	25.325	D
A-B	155.09	155.09	0.00	-	-	-	-	-
A-C	146.05	146.05	0.00	-	-	-	-	-
A-D	178.43	176.41	0.00	526.87	0.339	0.50	10.216	B
D-A	64.75	64.18	0.00	520.33	0.124	0.14	7.883	A
D-BC	201.76	196.60	0.00	350.14	0.576	1.29	22.936	C
C-D	194.99	194.99	0.00	-	-	-	-	-
C-A	215.32	215.32	0.00	-	-	-	-	-
C-B	96.37	95.65	0.00	629.08	0.153	0.18	6.741	A

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	43.15	43.05	0.00	467.92	0.092	0.10	8.471	A
B-AD	291.27	280.55	0.00	337.68	0.863	4.42	55.093	F
A-B	185.19	185.19	0.00	-	-	-	-	-
A-C	174.40	174.40	0.00	-	-	-	-	-
A-D	213.06	212.07	0.00	490.25	0.435	0.75	12.892	B
D-A	77.31	77.09	0.00	466.32	0.166	0.20	9.245	A
D-BC	240.93	233.73	0.00	304.22	0.792	3.09	47.213	E
C-D	232.84	232.84	0.00	-	-	-	-	-
C-A	257.11	257.11	0.00	-	-	-	-	-
C-B	115.07	114.84	0.00	597.97	0.192	0.24	7.448	A

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	52.85	52.70	0.00	432.24	0.122	0.14	9.478	A
B-AD	356.73	281.70	0.00	287.69	1.240	23.18	205.051	F
A-B	226.81	226.81	0.00	-	-	-	-	-
A-C	213.60	213.60	0.00	-	-	-	-	-
A-D	260.94	258.38	0.00	439.30	0.594	1.39	19.617	C
D-A	94.69	94.31	0.00	414.04	0.229	0.29	11.245	B
D-BC	295.07	233.86	0.00	241.27	1.223	18.39	197.860	F
C-D	285.16	285.16	0.00	-	-	-	-	-
C-A	314.89	314.89	0.00	-	-	-	-	-
C-B	140.93	140.53	0.00	554.93	0.254	0.34	8.677	A

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	52.85	52.84	0.00	425.50	0.124	0.14	9.659	A
B-AD	356.73	278.12	0.00	279.12	1.278	42.83	432.176	F
A-B	226.81	226.81	0.00	-	-	-	-	-
A-C	213.60	213.60	0.00	-	-	-	-	-
A-D	260.94	260.21	0.00	418.78	0.623	1.58	22.544	C
D-A	94.69	94.65	0.00	406.29	0.233	0.30	11.550	B
D-BC	295.07	229.30	0.00	230.50	1.280	34.84	419.640	F
C-D	285.16	285.16	0.00	-	-	-	-	-
C-A	314.89	314.89	0.00	-	-	-	-	-
C-B	140.93	140.87	0.00	536.40	0.263	0.35	9.098	A

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	43.15	43.27	0.00	435.61	0.099	0.11	9.179	A
B-AD	291.27	311.62	0.00	318.95	0.913	37.74	454.293	F
A-B	185.19	185.19	0.00	-	-	-	-	-
A-C	174.40	174.40	0.00	-	-	-	-	-
A-D	213.06	215.58	0.00	445.30	0.478	0.95	15.838	C
D-A	77.31	77.60	0.00	421.44	0.183	0.23	10.480	B
D-BC	240.93	273.22	0.00	281.12	0.857	26.76	397.549	F
C-D	232.84	232.84	0.00	-	-	-	-	-
C-A	257.11	257.11	0.00	-	-	-	-	-
C-B	115.07	115.43	0.00	557.34	0.206	0.26	8.154	A

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	36.14	36.23	0.00	451.71	0.080	0.09	8.667	A
B-AD	243.92	349.58	0.00	358.90	0.680	11.33	261.866	F
A-B	155.09	155.09	0.00	-	-	-	-	-
A-C	146.05	146.05	0.00	-	-	-	-	-
A-D	178.43	179.84	0.00	485.59	0.367	0.59	11.829	B
D-A	64.75	64.97	0.00	449.35	0.144	0.17	9.372	A
D-BC	201.76	300.69	0.00	328.98	0.613	2.03	160.756	F
C-D	194.99	194.99	0.00	-	-	-	-	-
C-A	215.32	215.32	0.00	-	-	-	-	-
C-B	96.37	96.64	0.00	596.67	0.162	0.19	7.205	A

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Wakefield Road - Lee Lane - Shaw Lane - Committed Scheme.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Wakefield Road - Lee Lane - Shaw Lane Committed Scheme

Report generation date: 08/01/2018 08:16:29

« Committed Layout - 2023 Predicted, Saturday

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS
Committed Layout - 2023 Predicted				
Stream B-C	0.35	11.58	0.26	B
Stream B-AD	35.23	319.15	1.18	F
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.50	11.22	0.34	B
Stream D-A	0.39	11.72	0.28	B
Stream D-BC	20.68	220.54	1.10	F
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.24	8.34	0.20	A

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

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 11:30 - 13:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday " model duration: 11:30 - 13:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 08:16:28

File summary

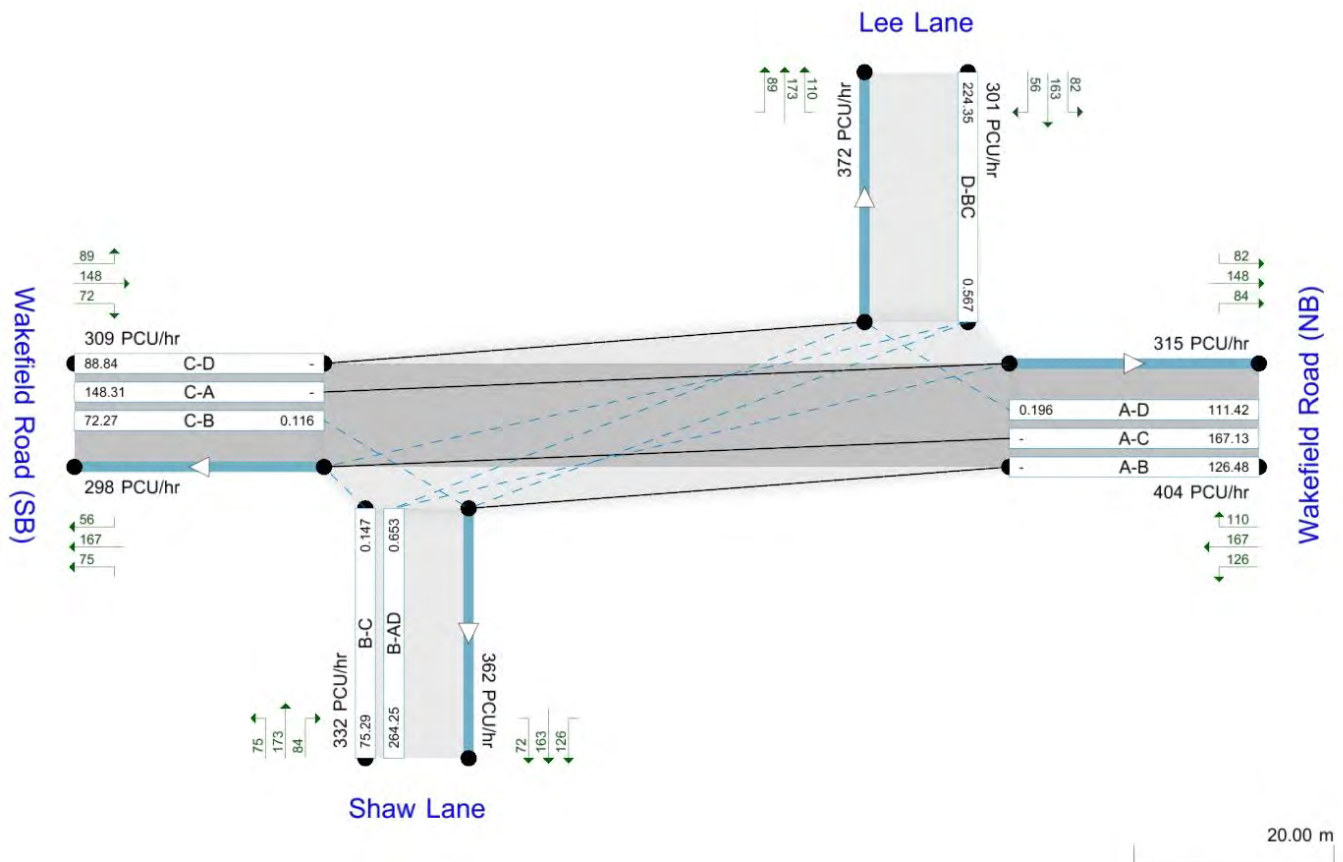
Title	Mapplewell, Barnsley
Location	Wakefield Road, Lee Lane, Shaw Lane Stagger
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	BRYANGHALL\JTurner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC (l)
Time Segment: (11:30-11:45)
Showing Analysis Set "A1 - Committed Layout"; Demand Set "D9 - 2023 Predicted, Saturday"

The junction diagram reflects the last run of ARCADY.

Committed Layout - 2023 Predicted, Saturday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Committed Layout	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, Saturday	2023 Predicted	Saturday		ONE HOUR	11:30	13:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Wakefield Road - Lee Lane - Shaw Lane	OS-NS Stagger (UK RL Stagger)	Two-way	A,B,C,D	165.60	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road (NB)	A	Wakefield Road (NB)		Major
Shaw Lane	B	Shaw Lane		Minor
Wakefield Road (SB)	C	Wakefield Road (SB)		Major
Lee Lane	D	Lee Lane		Minor

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road (NB)	6.00		0.00	✓	3.00	130.00		
Wakefield Road (SB)	6.00		0.00	✓	3.00	250.00		

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Shaw Lane	Two lanes		3.90	3.85						✓		55	35
Lee Lane	Two lanes		3.88	4.06						✓		40	65

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	705.776	-	-	-	0.273	0.273	0.273	-	0.273	-	-
1	B-AD	556.295	0.101	0.256	-	-	-	0.161	0.366	0.161	0.101	0.256
1	B-C	704.176	0.108	0.273	-	-	-	-	-	-	0.108	0.273
1	C-B	781.320	0.303	0.303	-	-	-	-	-	-	0.303	0.303
1	D-A	723.432	-	-	-	0.280	0.111	0.280	-	0.111	-	-
1	D-BC	578.082	0.167	0.167	0.380	0.266	0.105	0.266	-	0.105	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road (NB)	ONE HOUR	✓	538.00	100.000
Shaw Lane	ONE HOUR	✓	451.00	100.000
Wakefield Road (SB)	ONE HOUR	✓	411.00	100.000
Lee Lane	ONE HOUR	✓	408.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.000	168.000	222.000	148.000
	Shaw Lane	115.000	0.000	100.000	236.000
	Wakefield Road (SB)	197.000	96.000	0.000	118.000
	Lee Lane	110.000	222.000	76.000	0.000

Turning Proportions (PCU) - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.00	0.31	0.41	0.28
	Shaw Lane	0.25	0.00	0.22	0.52
	Wakefield Road (SB)	0.48	0.23	0.00	0.29
	Lee Lane	0.27	0.54	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	1.000	1.010	1.022	1.000
	Shaw Lane	1.010	1.000	1.000	1.006
	Wakefield Road (SB)	1.028	1.000	1.000	1.000
	Lee Lane	1.000	1.010	1.000	1.000

Heavy Vehicle Percentages - Wakefield Road - Lee Lane - Shaw Lane (for whole period)

	To				
		Wakefield Road (NB)	Shaw Lane	Wakefield Road (SB)	Lee Lane
From	Wakefield Road (NB)	0.0	1.0	2.2	0.0
	Shaw Lane	1.0	0.0	0.0	0.6
	Wakefield Road (SB)	2.8	0.0	0.0	0.0
	Lee Lane	0.0	1.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.26	11.58	0.35	B
B-AD	1.18	319.15	35.23	F
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.34	11.22	0.50	B
D-A	0.28	11.72	0.39	B
D-BC	1.10	220.54	20.68	F
C-D	-	-	-	-
C-A	-	-	-	-
C-B	0.20	8.34	0.24	A

Main Results for each time segment

Main results: (11:30-11:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	75.29	74.60	0.00	511.43	0.147	0.17	8.229	A
B-AD	264.25	257.21	0.00	404.44	0.653	1.76	23.643	C
A-B	126.48	126.48	0.00	-	-	-	-	-
A-C	167.13	167.13	0.00	-	-	-	-	-
A-D	111.42	110.46	0.00	568.67	0.196	0.24	7.840	A
D-A	82.81	82.10	0.00	539.09	0.154	0.18	7.878	A
D-BC	224.35	219.35	0.00	395.99	0.567	1.25	20.020	C
C-D	88.84	88.84	0.00	-	-	-	-	-
C-A	148.31	148.31	0.00	-	-	-	-	-
C-B	72.27	71.75	0.00	624.52	0.116	0.13	6.507	A

Main results: (11:45-12:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	89.90	89.63	0.00	464.76	0.193	0.24	9.590	A
B-AD	315.54	306.13	0.00	374.07	0.844	4.11	47.691	E
A-B	151.03	151.03	0.00	-	-	-	-	-
A-C	199.57	199.57	0.00	-	-	-	-	-
A-D	133.05	132.72	0.00	540.13	0.246	0.32	8.829	A
D-A	98.89	98.61	0.00	492.80	0.201	0.25	9.126	A
D-BC	267.90	262.58	0.00	359.17	0.746	2.58	35.669	E
C-D	106.08	106.08	0.00	-	-	-	-	-
C-A	177.10	177.10	0.00	-	-	-	-	-
C-B	86.30	86.15	0.00	592.57	0.146	0.17	7.107	A

Main results: (12:00-12:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	110.10	109.67	0.00	425.07	0.259	0.34	11.397	B
B-AD	386.46	323.30	0.00	332.51	1.162	19.90	159.673	F
A-B	184.97	184.97	0.00	-	-	-	-	-
A-C	244.43	244.43	0.00	-	-	-	-	-
A-D	162.95	162.34	0.00	500.76	0.325	0.47	10.618	B
D-A	121.11	120.59	0.00	435.89	0.278	0.38	11.397	B
D-BC	328.10	290.73	0.00	308.69	1.063	11.92	116.206	F
C-D	129.92	129.92	0.00	-	-	-	-	-
C-A	216.90	216.90	0.00	-	-	-	-	-
C-B	105.70	105.43	0.00	548.88	0.193	0.24	8.113	A

Main results: (12:15-12:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	110.10	110.08	0.00	420.87	0.262	0.35	11.581	B
B-AD	386.46	325.13	0.00	327.15	1.181	35.23	319.154	F
A-B	184.97	184.97	0.00	-	-	-	-	-
A-C	244.43	244.43	0.00	-	-	-	-	-
A-D	162.95	162.84	0.00	483.49	0.337	0.50	11.221	B
D-A	121.11	121.07	0.00	428.01	0.283	0.39	11.725	B
D-BC	328.10	293.08	0.00	298.48	1.099	20.68	220.544	F
C-D	129.92	129.92	0.00	-	-	-	-	-
C-A	216.90	216.90	0.00	-	-	-	-	-
C-B	105.70	105.67	0.00	537.57	0.197	0.24	8.335	A

Main results: (12:30-12:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	89.90	90.24	0.00	435.63	0.206	0.26	10.433	B
B-AD	315.54	352.88	0.00	362.97	0.869	25.90	310.880	F
A-B	151.03	151.03	0.00	-	-	-	-	-
A-C	199.57	199.57	0.00	-	-	-	-	-
A-D	133.05	133.60	0.00	503.51	0.264	0.36	9.746	A
D-A	98.89	99.27	0.00	439.56	0.225	0.29	10.590	B
D-BC	267.90	323.77	0.00	337.62	0.793	6.71	166.553	F
C-D	106.08	106.08	0.00	-	-	-	-	-
C-A	177.10	177.10	0.00	-	-	-	-	-
C-B	86.30	86.55	0.00	569.05	0.152	0.18	7.464	A

Main results: (12:45-13:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	75.29	75.56	0.00	467.78	0.161	0.19	9.186	A
B-AD	264.25	358.35	0.00	400.40	0.660	2.37	122.241	F
A-B	126.48	126.48	0.00	-	-	-	-	-
A-C	167.13	167.13	0.00	-	-	-	-	-
A-D	111.42	111.83	0.00	540.34	0.206	0.26	8.410	A
D-A	82.81	83.21	0.00	509.62	0.163	0.20	8.451	A
D-BC	224.35	244.96	0.00	379.07	0.592	1.56	30.551	D
C-D	88.84	88.84	0.00	-	-	-	-	-
C-A	148.31	148.31	0.00	-	-	-	-	-
C-B	72.27	72.46	0.00	616.40	0.117	0.13	6.622	A

Junctions 8				
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Filename: Wakefield Road - Paddock Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Wakefield Road - Paddock Road

Report generation date: 08/01/2018 08:24:51

- « Existing Layout - 2023 Predicted, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
Existing Layout - 2023 Predicted				
Stream B-C	0.14	13.93	0.12	B
Stream B-A	1.46	29.47	0.60	D
Stream C-AB	0.01	4.73	0.01	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2017 Existing, AM" model duration: 07:30 - 09:00

"D2 - 2017 Existing, PM" model duration: 16:30 - 18:00

"D3 - 2017 Existing, Saturday" model duration: 11:30 - 13:00

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 11:30 - 13:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 11:30 - 13:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 08:24:50

File summary

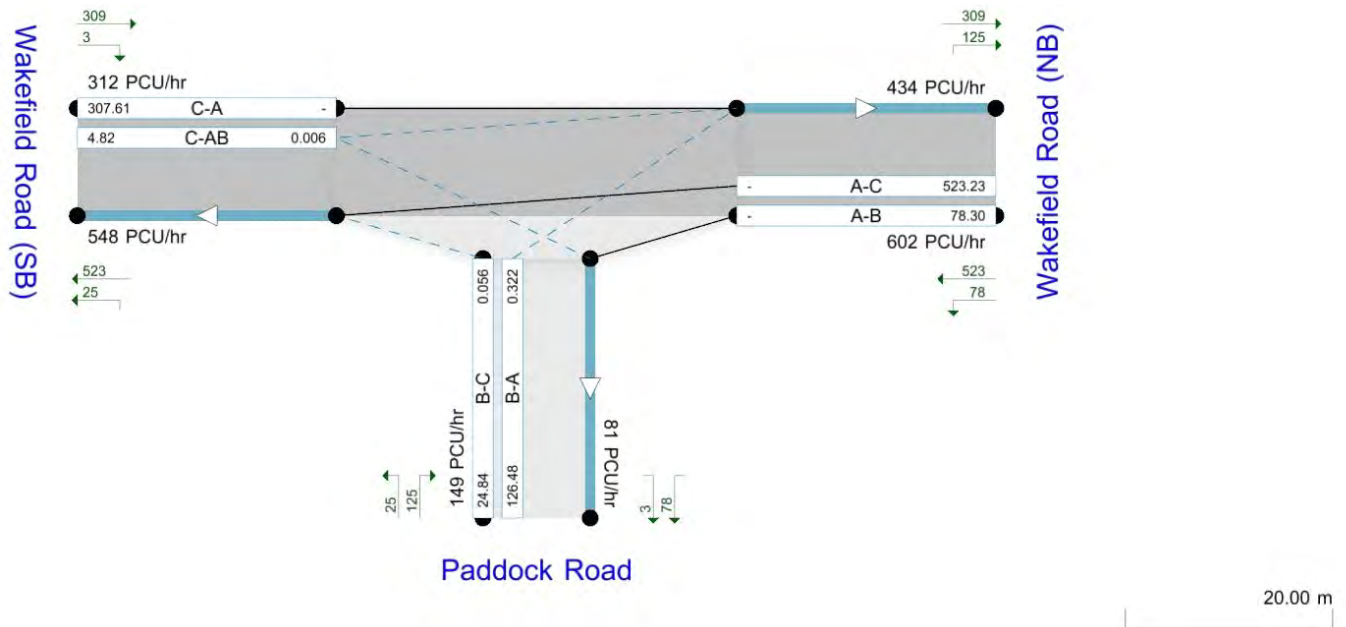
Title	Mapplewell, Barnsley
Location	Wakefield Road - Paddock Road
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14/114
Enumerator	BRYANGHALLJTurner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Value Comparison Overlay Boxes Enabled
Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr). Streams (downstreams) show RFC (i)
Time Segment: (07:30-07:45)
Showing Analysis Set "A1 - Existing Layout", Demand Set "D7 - 2023 Predicted, AM"

The junction diagram reflects the last run of ARCADY.

Existing Layout - 2023 Predicted, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, AM	2023 Predicted	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	A,B,C	26.13	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road (NB)	A	Wakefield Road (NB)		Major
Paddock Road	B	Paddock Road		Minor
Wakefield Road (SB)	C	Wakefield Road (SB)		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road (SB)	7.90		0.00		2.20	250.00	✓	0.00

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Paddock Road	One lane plus flare				10.00	6.00	4.40	3.00	3.00		1.00	30	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	575.963	0.096	0.243	0.153	0.347
1	B-C	623.046	0.088	0.221	-	-
1	C-B	718.741	0.255	0.255	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road (NB)	ONE HOUR	✓	799.00	100.000
Paddock Road	ONE HOUR	✓	201.00	100.000
Wakefield Road (SB)	ONE HOUR	✓	415.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	0.000	104.000	695.000
	Paddock Road	168.000	0.000	33.000
	Wakefield Road (SB)	411.000	4.000	0.000

Turning Proportions (PCU) - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	0.00	0.13	0.87
	Paddock Road	0.84	0.00	0.16
	Wakefield Road (SB)	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	1.000	1.000	1.016
	Paddock Road	1.000	1.000	1.000
	Wakefield Road (SB)	1.022	1.000	1.000

Heavy Vehicle Percentages - Site Access (for whole period)

From	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
	Wakefield Road (NB)	0.0	0.0	1.6
	Paddock Road	0.0	0.0	0.0
	Wakefield Road (SB)	2.2	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	13.93	0.14	B
B-A	0.60	29.47	1.46	D
C-AB	0.01	4.73	0.01	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	24.84	24.61	0.00	446.24	0.056	0.06	8.534	A
B-A	126.48	124.62	0.00	392.43	0.322	0.47	13.353	B
C-AB	4.82	4.80	0.00	772.14	0.006	0.01	4.729	A
C-A	307.61	307.61	0.00	-	-	-	-	-
A-B	78.30	78.30	0.00	-	-	-	-	-
A-C	523.23	523.23	0.00	-	-	-	-	-

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	29.67	29.58	0.00	395.47	0.075	0.08	9.836	A
B-A	151.03	150.04	0.00	356.54	0.424	0.71	17.347	C
C-AB	6.38	6.37	0.00	786.10	0.008	0.01	4.657	A
C-A	366.70	366.70	0.00	-	-	-	-	-
A-B	93.49	93.49	0.00	-	-	-	-	-
A-C	624.79	624.79	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	36.33	36.11	0.00	299.17	0.121	0.14	13.674	B
B-A	184.97	182.16	0.00	306.44	0.604	1.42	28.333	D
C-AB	9.02	9.00	0.00	806.56	0.011	0.01	4.560	A
C-A	447.90	447.90	0.00	-	-	-	-	-
A-B	114.51	114.51	0.00	-	-	-	-	-
A-C	765.21	765.21	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	36.33	36.32	0.00	294.82	0.123	0.14	13.926	B
B-A	184.97	184.77	0.00	306.42	0.604	1.46	29.467	D
C-AB	9.02	9.02	0.00	806.57	0.011	0.01	4.563	A
C-A	447.90	447.90	0.00	-	-	-	-	-
A-B	114.51	114.51	0.00	-	-	-	-	-
A-C	765.21	765.21	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	29.67	29.89	0.00	391.70	0.076	0.08	9.955	A
B-A	151.03	153.85	0.00	356.55	0.424	0.76	17.995	C
C-AB	6.38	6.40	0.00	786.11	0.008	0.01	4.665	A
C-A	366.69	366.69	0.00	-	-	-	-	-
A-B	93.49	93.49	0.00	-	-	-	-	-
A-C	624.79	624.79	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	24.84	24.94	0.00	444.19	0.056	0.06	8.588	A
B-A	126.48	127.57	0.00	392.45	0.322	0.49	13.645	B
C-AB	4.83	4.84	0.00	772.15	0.006	0.01	4.733	A
C-A	307.60	307.60	0.00	-	-	-	-	-
A-B	78.30	78.30	0.00	-	-	-	-	-
A-C	523.23	523.23	0.00	-	-	-	-	-

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Wakefield Road - Paddock Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Wakefield Road - Paddock Road

Report generation date: 08/01/2018 08:25:38

« Existing Layout - 2023 Predicted, PM

» Junction Network

» Arms

» Traffic Flows

» Entry Flows

» Turning Proportions

» Vehicle Mix

» Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
Existing Layout - 2023 Predicted				
Stream B-C	7.00	248.31	1.05	F
Stream B-A	16.51	179.13	1.05	F
Stream C-AB	0.10	4.73	0.06	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2017 Existing, AM" model duration: 07:30 - 09:00

"D2 - 2017 Existing, PM" model duration: 16:30 - 18:00

"D3 - 2017 Existing, Saturday" model duration: 11:30 - 13:00

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 11:30 - 13:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM " model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 11:30 - 13:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 08:25:37

File summary

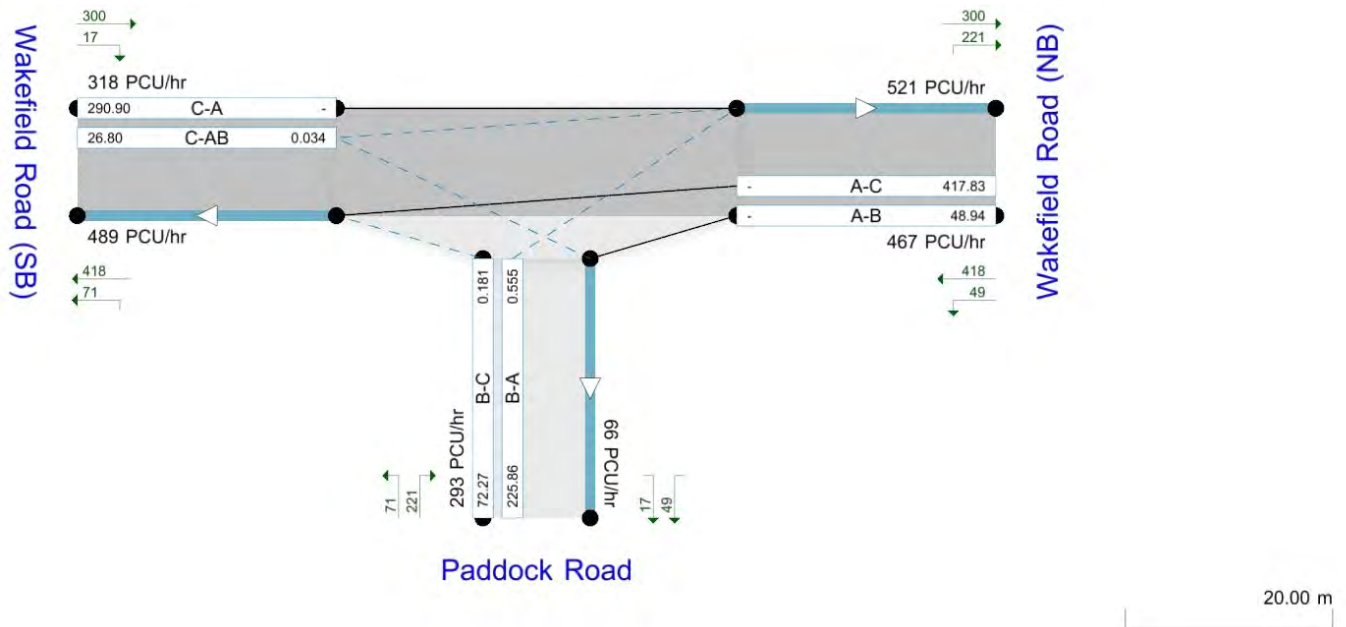
Title	Mapplewell, Barnsley
Location	Wakefield Road - Paddock Road
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14/114
Enumerator	BRYANGHALLJTurner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of ARCADY.

Existing Layout - 2023 Predicted, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, PM	2023 Predicted	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	A,B,C	177.87	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road (NB)	A	Wakefield Road (NB)		Major
Paddock Road	B	Paddock Road		Minor
Wakefield Road (SB)	C	Wakefield Road (SB)		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road (SB)	7.90		0.00		2.20	250.00	✓	0.00

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Paddock Road	One lane plus flare				10.00	6.00	4.40	3.00	3.00		1.00	30	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	567.540	0.095	0.240	0.151	0.342
1	B-C	641.022	0.090	0.228	-	-
1	C-B	718.741	0.255	0.255	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road (NB)	ONE HOUR	✓	620.00	100.000
Paddock Road	ONE HOUR	✓	396.00	100.000
Wakefield Road (SB)	ONE HOUR	✓	422.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	0.000	65.000	555.000
	Paddock Road	300.000	0.000	96.000
	Wakefield Road (SB)	399.000	23.000	0.000

Turning Proportions (PCU) - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	0.00	0.10	0.90
	Paddock Road	0.76	0.00	0.24
	Wakefield Road (SB)	0.95	0.05	0.00

Vehicle Mix

Average PCU Per Vehicle - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	1.000	1.000	1.016
	Paddock Road	1.000	1.000	1.000
	Wakefield Road (SB)	1.022	1.000	1.000

Heavy Vehicle Percentages - Site Access (for whole period)

From	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
	Wakefield Road (NB)	0.0	0.0	1.6
	Paddock Road	0.0	0.0	0.0
	Wakefield Road (SB)	2.2	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.05	248.31	7.00	F
B-A	1.05	179.13	16.51	F
C-AB	0.06	4.73	0.10	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	72.27	71.40	0.00	399.19	0.181	0.22	10.955	B
B-A	225.86	221.09	0.00	406.77	0.555	1.19	18.944	C
C-AB	26.80	26.62	0.00	795.17	0.034	0.05	4.720	A
C-A	290.90	290.90	0.00	-	-	-	-	-
A-B	48.94	48.94	0.00	-	-	-	-	-
A-C	417.83	417.83	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	86.30	85.50	0.00	287.52	0.300	0.42	17.750	C
B-A	269.69	265.01	0.00	371.28	0.726	2.36	32.475	D
C-AB	35.03	34.96	0.00	812.42	0.043	0.06	4.669	A
C-A	344.34	344.34	0.00	-	-	-	-	-
A-B	58.43	58.43	0.00	-	-	-	-	-
A-C	498.93	498.93	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	105.70	86.04	0.00	100.75	1.049	5.33	166.843	F
B-A	330.31	297.33	0.00	318.81	1.036	10.61	103.461	F
C-AB	51.54	51.39	0.00	847.50	0.061	0.10	4.568	A
C-A	413.09	413.09	0.00	-	-	-	-	-
A-B	71.57	71.57	0.00	-	-	-	-	-
A-C	611.07	611.07	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	105.70	99.04	0.00	107.51	0.983	7.00	248.309	F
B-A	330.31	306.71	0.00	315.48	1.047	16.51	179.127	F
C-AB	51.60	51.59	0.00	847.56	0.061	0.10	4.575	A
C-A	413.03	413.03	0.00	-	-	-	-	-
A-B	71.57	71.57	0.00	-	-	-	-	-
A-C	611.07	611.07	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	86.30	109.05	0.00	161.34	0.535	1.31	85.956	F
B-A	269.69	319.97	0.00	357.19	0.755	3.94	108.148	F
C-AB	35.09	35.24	0.00	812.51	0.043	0.06	4.682	A
C-A	344.28	344.28	0.00	-	-	-	-	-
A-B	58.43	58.43	0.00	-	-	-	-	-
A-C	498.93	498.93	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	72.27	76.56	0.00	379.70	0.190	0.24	12.037	B
B-A	225.86	236.33	0.00	405.44	0.557	1.32	22.457	C
C-AB	26.88	26.95	0.00	795.24	0.034	0.05	4.727	A
C-A	290.82	290.82	0.00	-	-	-	-	-
A-B	48.94	48.94	0.00	-	-	-	-	-
A-C	417.83	417.83	0.00	-	-	-	-	-

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Wakefield Road - Paddock Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Wakefield Road - Paddock Road

Report generation date: 08/01/2018 08:26:10

« Existing Layout - 2023 Predicted, Saturday

» Junction Network

» Arms

» Traffic Flows

» Entry Flows

» Turning Proportions

» Vehicle Mix

» Results

Summary of junction performance

	Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS
Existing Layout - 2023 Predicted				
Stream B-C	0.04	11.25	0.04	B
Stream B-A	1.24	23.37	0.56	C
Stream C-AB	0.03	4.59	0.02	A
Stream C-A	-	-	-	-
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2017 Existing, AM" model duration: 07:30 - 09:00

"D2 - 2017 Existing, PM" model duration: 16:30 - 18:00

"D3 - 2017 Existing, Saturday" model duration: 11:30 - 13:00

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 11:30 - 13:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 11:30 - 13:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 08:26:09

File summary

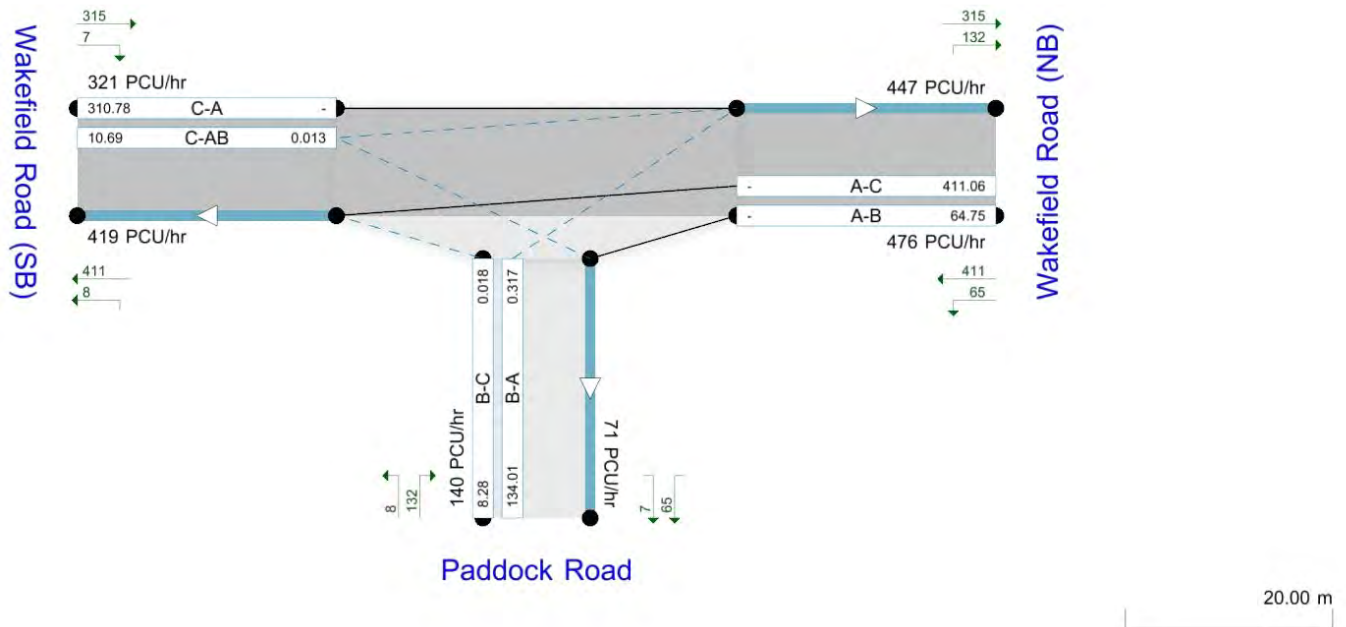
Title	Mapplewell, Barnsley
Location	Wakefield Road - Paddock Road
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14/114
Enumerator	BRYANGHALLJTurner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of ARCADY.

Existing Layout - 2023 Predicted, Saturday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, Saturday	2023 Predicted	Saturday		ONE HOUR	11:30	13:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	A,B,C	21.25	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road (NB)	A	Wakefield Road (NB)		Major
Paddock Road	B	Paddock Road		Minor
Wakefield Road (SB)	C	Wakefield Road (SB)		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road (SB)	7.90		0.00		2.20	250.00	✓	0.00

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Paddock Road	One lane plus flare				10.00	6.00	4.40	3.00	3.00		1.00	30	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	580.881	0.097	0.245	0.154	0.350
1	B-C	612.553	0.086	0.218	-	-
1	C-B	718.741	0.255	0.255	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road (NB)	ONE HOUR	✓	632.00	100.000
Paddock Road	ONE HOUR	✓	189.00	100.000
Wakefield Road (SB)	ONE HOUR	✓	427.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	0.000	86.000	546.000
	Paddock Road	178.000	0.000	11.000
	Wakefield Road (SB)	418.000	9.000	0.000

Turning Proportions (PCU) - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	0.00	0.14	0.86
	Paddock Road	0.94	0.00	0.06
	Wakefield Road (SB)	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Site Access (for whole period)

	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
From	Wakefield Road (NB)	1.000	1.000	1.016
	Paddock Road	1.000	1.000	1.000
	Wakefield Road (SB)	1.022	1.000	1.000

Heavy Vehicle Percentages - Site Access (for whole period)

From	To			
		Wakefield Road (NB)	Paddock Road	Wakefield Road (SB)
	Wakefield Road (NB)	0.0	0.0	1.6
	Paddock Road	0.0	0.0	0.0
	Wakefield Road (SB)	2.2	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	11.25	0.04	B
B-A	0.56	23.37	1.24	C
C-AB	0.02	4.59	0.03	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (11:30-11:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	8.28	8.21	0.00	462.02	0.018	0.02	7.932	A
B-A	134.01	132.19	0.00	422.78	0.317	0.45	12.314	B
C-AB	10.69	10.63	0.00	802.15	0.013	0.02	4.584	A
C-A	310.78	310.78	0.00	-	-	-	-	-
A-B	64.75	64.75	0.00	-	-	-	-	-
A-C	411.06	411.06	0.00	-	-	-	-	-

Main results: (11:45-12:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	9.89	9.87	0.00	417.51	0.024	0.02	8.831	A
B-A	160.02	159.15	0.00	392.05	0.408	0.67	15.398	C
C-AB	14.02	14.00	0.00	820.73	0.017	0.02	4.500	A
C-A	369.84	369.84	0.00	-	-	-	-	-
A-B	77.31	77.31	0.00	-	-	-	-	-
A-C	490.84	490.84	0.00	-	-	-	-	-

Main results: (12:00-12:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	12.11	12.06	0.00	335.13	0.036	0.04	11.142	B
B-A	195.98	193.83	0.00	349.53	0.561	1.21	22.800	C
C-AB	19.52	19.49	0.00	846.98	0.023	0.03	4.394	A
C-A	450.61	450.61	0.00	-	-	-	-	-
A-B	94.69	94.69	0.00	-	-	-	-	-
A-C	601.16	601.16	0.00	-	-	-	-	-

Main results: (12:15-12:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	12.11	12.11	0.00	332.16	0.036	0.04	11.247	B
B-A	195.98	195.86	0.00	349.53	0.561	1.24	23.373	C
C-AB	19.54	19.54	0.00	846.99	0.023	0.03	4.398	A
C-A	450.60	450.60	0.00	-	-	-	-	-
A-B	94.69	94.69	0.00	-	-	-	-	-
A-C	601.16	601.16	0.00	-	-	-	-	-

Main results: (12:30-12:45)

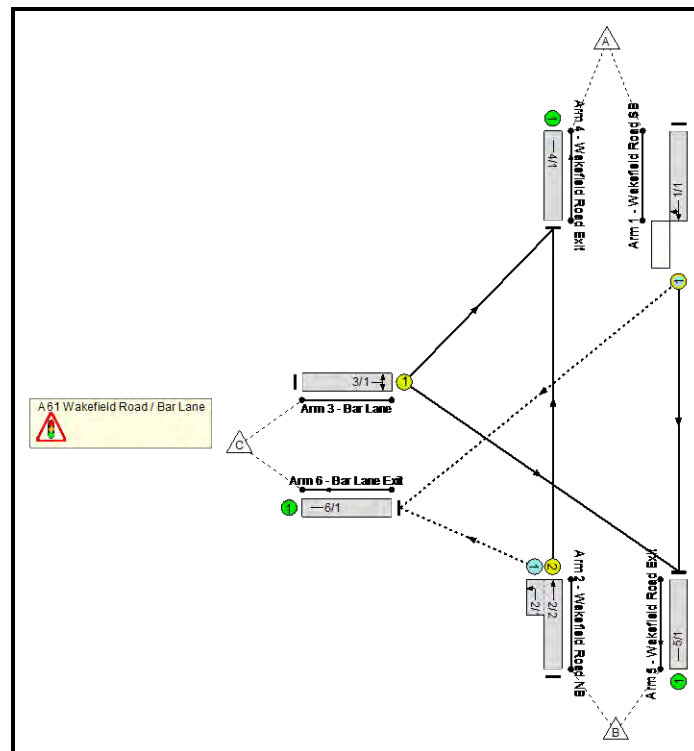
Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	9.89	9.94	0.00	414.74	0.024	0.02	8.895	A
B-A	160.02	162.15	0.00	392.05	0.408	0.71	15.799	C
C-AB	14.04	14.07	0.00	820.75	0.017	0.02	4.509	A
C-A	369.83	369.83	0.00	-	-	-	-	-
A-B	77.31	77.31	0.00	-	-	-	-	-
A-C	490.84	490.84	0.00	-	-	-	-	-

Main results: (12:45-13:00)

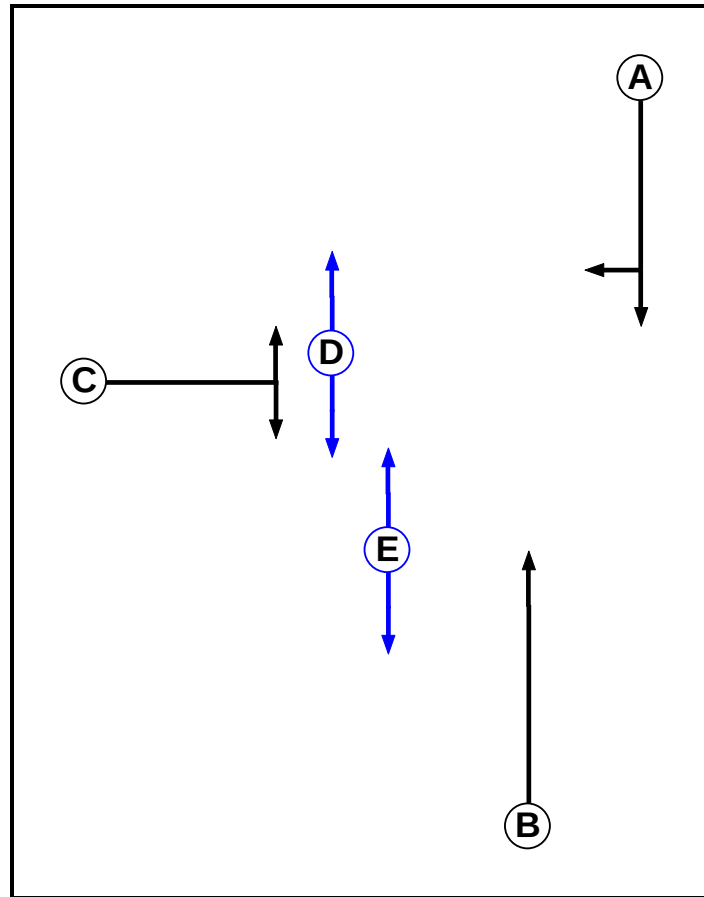
Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	8.28	8.31	0.00	460.20	0.018	0.02	7.968	A
B-A	134.01	134.95	0.00	422.77	0.317	0.47	12.547	B
C-AB	10.72	10.74	0.00	802.17	0.013	0.02	4.589	A
C-A	310.75	310.75	0.00	-	-	-	-	-
A-B	64.75	64.75	0.00	-	-	-	-	-
A-C	411.06	411.06	0.00	-	-	-	-	-

Full Input Data And Results**User and Project Details**

Project:	Wakefield Road, Mapplewell
Title:	2017 Existing
Location:	
File name:	Wakefield Road - Bar Lane.lsg3x
Author:	John Turner
Company:	Bryan G Hall
Address:	
Notes:	Wakefield Road/Bar Lane

Network Layout Diagram

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Pedestrian		6	6
E	Pedestrian		6	6

Phase Intergreens Matrix

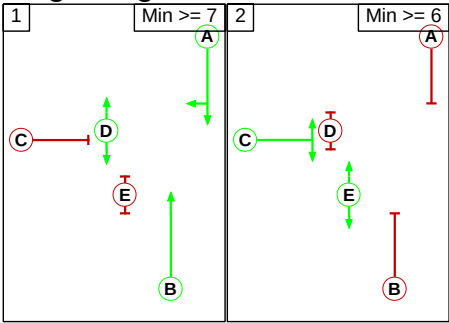
		Starting Phase					
Terminating Phase		A	B	C	D	E	
	A		-	5	-	9	
	B	-		6	-	-	
	C	5	5		5	-	
	D	-	-	7		-	
	E	8	-	-	-		

Phases in Stage

Stage No.	Phases in Stage
1	A B D
2	C E

Full Input Data And Results

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage	
	1	2
	1	9
2	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A61 Wakefield Road / Bar Lane											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (Wakefield Road SB)	6/1 (Right)	1439	0	2/2	1.09	All	4.00	4.00	0.50	4	2.00
2/1 (Wakefield Road NB)	6/1 (Left)	1439	0	1/1	1.09	To 6/1 (Right)	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: A61 Wakefield Road / Bar Lane

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Wakefield Road SB)	O	A	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 5 Ahead	Inf
2/1 (Wakefield Road NB)	O		2	3	3.0	Geom	-	4.00	0.00	Y	Arm 6 Right	12.50
											Arm 6 Left	100.00
2/2 (Wakefield Road NB)	U	B	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 4 Ahead	Inf
3/1 (Bar Lane)	U	C	2	3	60.0	Geom	-	3.70	0.00	Y	Arm 4 Left	12.50
											Arm 5 Right	8.00
4/1 (Wakefield Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Wakefield Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Bar Lane Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
7: '2023 Predicted AM'	07:45	08:45	01:00	
8: '2023 Predicted PM'	16:45	17:45	01:00	
9: '2023 Predicted Saturday'	11:45	12:45	01:00	

Scenario 7: '2023 Predicted AM' (FG7: '2023 Predicted AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin	A	A	B	C	Tot.
	A	0	579	21	600
	B	725	0	423	1148
	C	55	553	0	608
	Tot.	780	1132	444	2356

Traffic Lane Flows

Lane	Scenario 7: 2023 Predicted AM
Junction: A61 Wakefield Road / Bar Lane	
1/1	600
2/1 (short)	423
2/2 (with short)	1148(In) 725(Out)
3/1	608
4/1	780
5/1	1132
6/1	444

Lane Saturation Flows

Junction: A61 Wakefield Road / Bar Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wakefield Road SB)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Right	Inf 12.50	96.5 % 3.5 %	1947	1947
2/1 (Wakefield Road NB)	4.00	0.00	Y	Arm 6 Left	100.00	100.0 %	1985	1985
2/2 (Wakefield Road NB)	3.80	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1995	1995
3/1 (Bar Lane)	3.70	0.00	Y	Arm 4 Left Arm 5 Right	12.50 8.00	9.0 % 91.0 %	1680	1680
4/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bar Lane Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2023 Predicted PM' (FG8: '2023 Predicted PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	667	40	707
	B	612	0	613	1225
	C	28	484	0	512
	Tot.	640	1151	653	2444

Traffic Lane Flows

Lane	Scenario 8: 2023 Predicted PM
Junction: A61 Wakefield Road / Bar Lane	
1/1	707
2/1 (short)	613
2/2 (with short)	1225(In) 612(Out)
3/1	512
4/1	640
5/1	1151
6/1	653

Lane Saturation Flows

Junction: A61 Wakefield Road / Bar Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wakefield Road SB)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Right	Inf 12.50	94.3 % 5.7 %	1942	1942
2/1 (Wakefield Road NB)	4.00	0.00	Y	Arm 6 Left	100.00	100.0 %	1985	1985
2/2 (Wakefield Road NB)	3.80	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1995	1995
3/1 (Bar Lane)	3.70	0.00	Y	Arm 4 Left Arm 5 Right	12.50 8.00	5.5 % 94.5 %	1677	1677
4/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bar Lane Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2023 Predicted Saturday' (FG9: '2023 Predicted Saturday', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	559	42	601
	B	596	0	517	1113
	C	36	474	0	510
	Tot.	632	1033	559	2224

Traffic Lane Flows

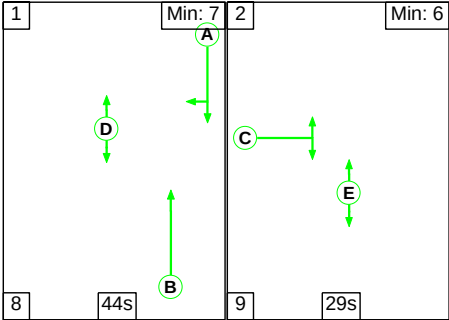
Lane	Scenario 9: 2023 Predicted Saturday
Junction: A61 Wakefield Road / Bar Lane	
1/1	601
2/1 (short)	517
2/2 (with short)	1113(In) 596(Out)
3/1	510
4/1	632
5/1	1033
6/1	559

Lane Saturation Flows

Junction: A61 Wakefield Road / Bar Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wakefield Road SB)	3.40	0.00	Y	Arm 5 Ahead	Inf	93.0 %	1939	1939
				Arm 6 Right	12.50	7.0 %		
2/1 (Wakefield Road NB)	4.00	0.00	Y	Arm 6 Left	100.00	100.0 %	1985	1985
2/2 (Wakefield Road NB)	3.80	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1995	1995
3/1 (Bar Lane)	3.70	0.00	Y	Arm 4 Left	12.50	7.1 %	1678	1678
				Arm 5 Right	8.00	92.9 %		
4/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bar Lane Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2023 Predicted AM' (FG7: '2023 Predicted AM', Plan 1: 'Network Control Plan 1')

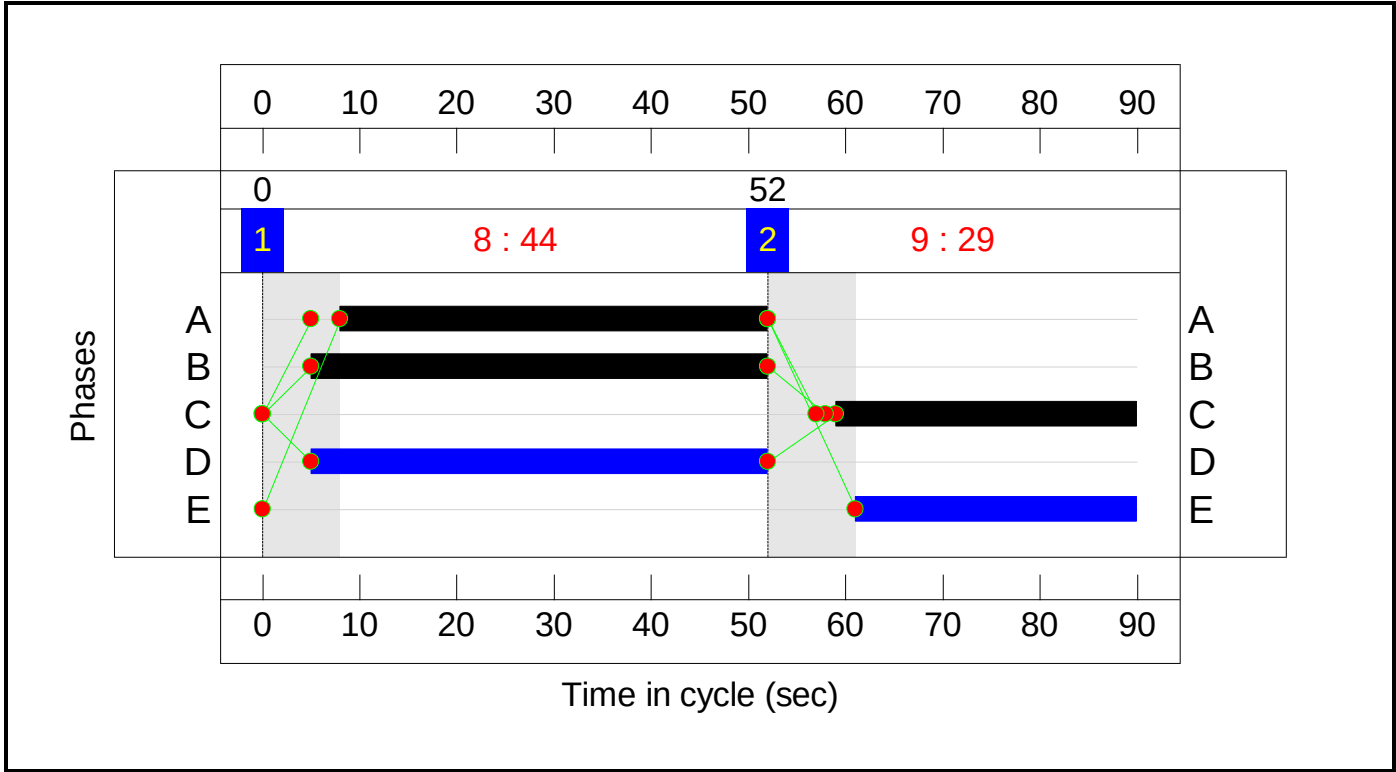
Stage Sequence Diagram



Stage Timings

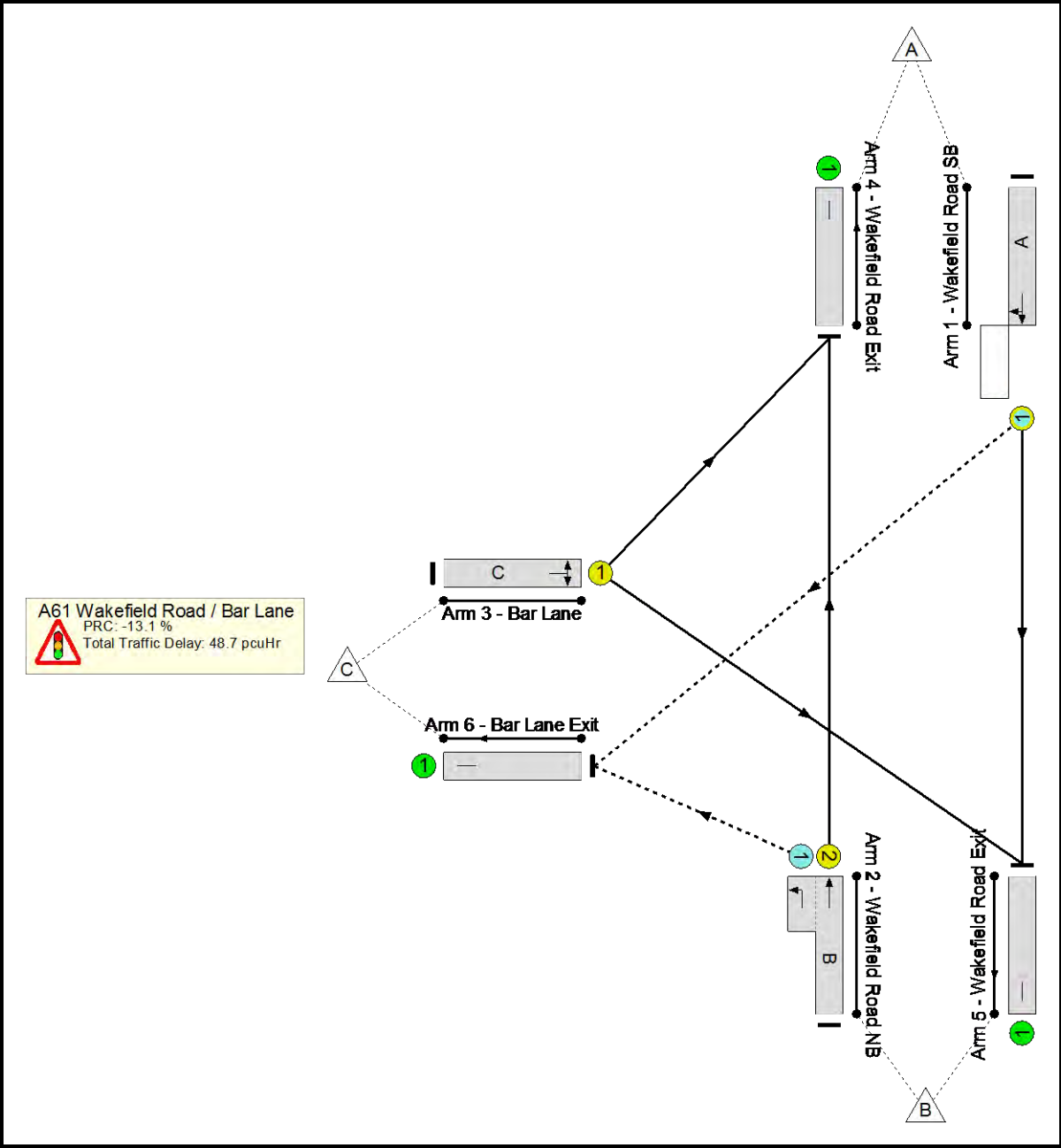
Stage	1	2
Duration	44	29
Change Point	0	52

Signal Timings Diagram



Full Input Data And Results

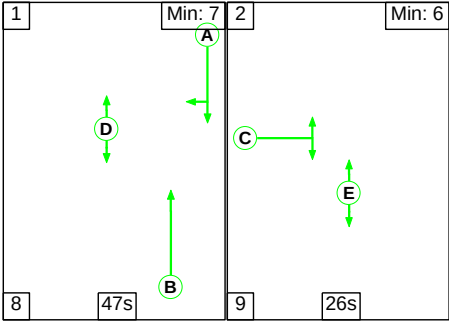
Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: 2017 Existing	-	-	N/A	-	-		-	-	-	-	-	-	101.8%
A61 Wakefield Road / Bar Lane	-	-	N/A	-	-		-	-	-	-	-	-	101.8%
1/1	Wakefield Road SB Ahead Right	O	N/A	N/A	A		1	44	-	600	1947	973	61.6%
2/2+2/1	Wakefield Road NB Ahead Left	U+O	N/A	N/A	B -		1	47	-	1148	1995:1985	1141	100.6%
3/1	Bar Lane Left Right	U	N/A	N/A	C		1	31	-	608	1680	597	101.8%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: 2017 Existing	-	-	385	56	0	13.9	34.7	0.0	48.7	-	-	-	-
A61 Wakefield Road / Bar Lane	-	-	385	56	0	13.9	34.7	0.0	48.7	-	-	-	-
1/1	600	600	21	0	0	2.7	0.8	0.0	3.5	21.1	10.8	0.8	11.6
2/2+2/1	1148	1141	365	56	0	5.8	18.7	-	24.4	76.6	27.6	18.7	46.2
3/1	608	597	-	-	-	5.5	15.3	-	20.8	122.9	15.5	15.3	30.7
C1 PRC for Signalled Lanes (%): -13.1 Total Delay for Signalled Lanes (pcuHr): 48.70 Cycle Time (s): 90 PRC Over All Lanes (%): -13.1 Total Delay Over All Lanes(pcuHr): 48.70													

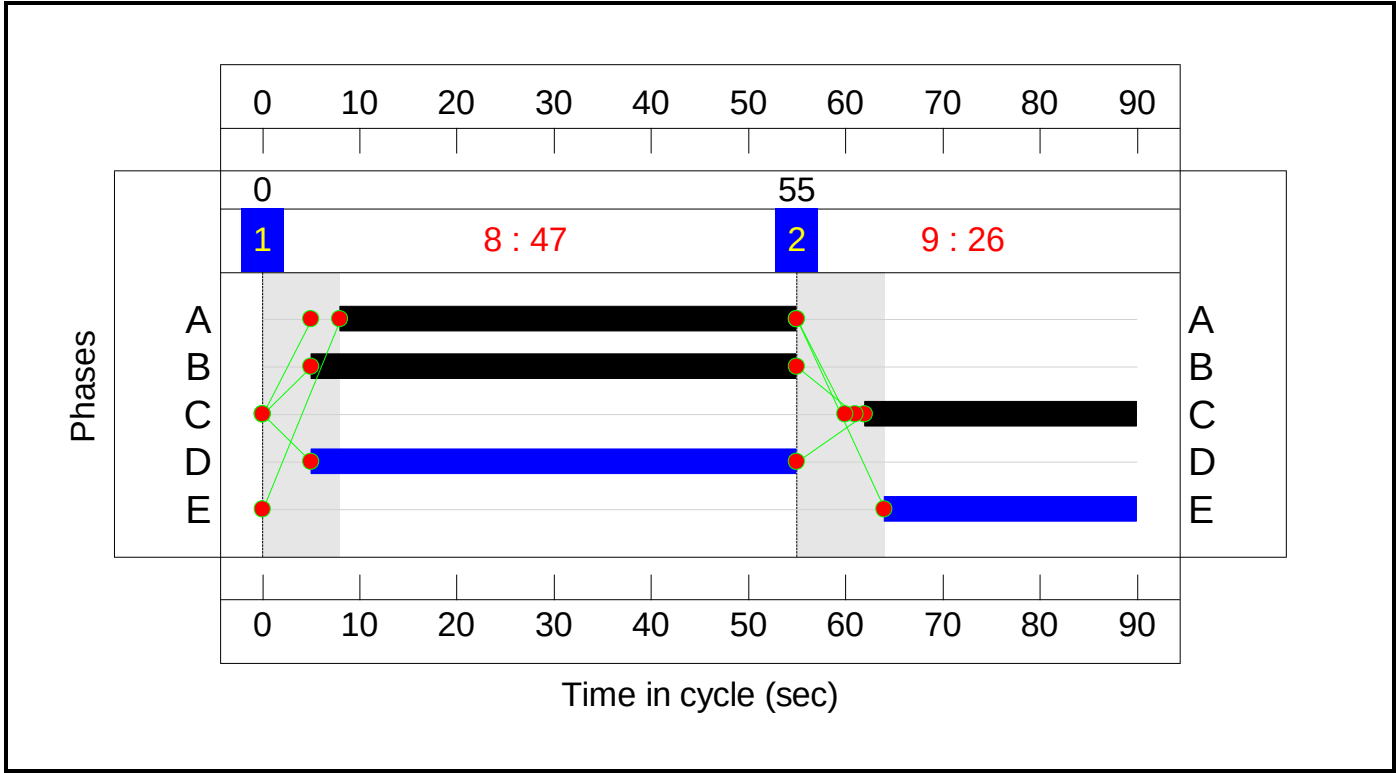
Stage Sequence Diagram



Stage Timings

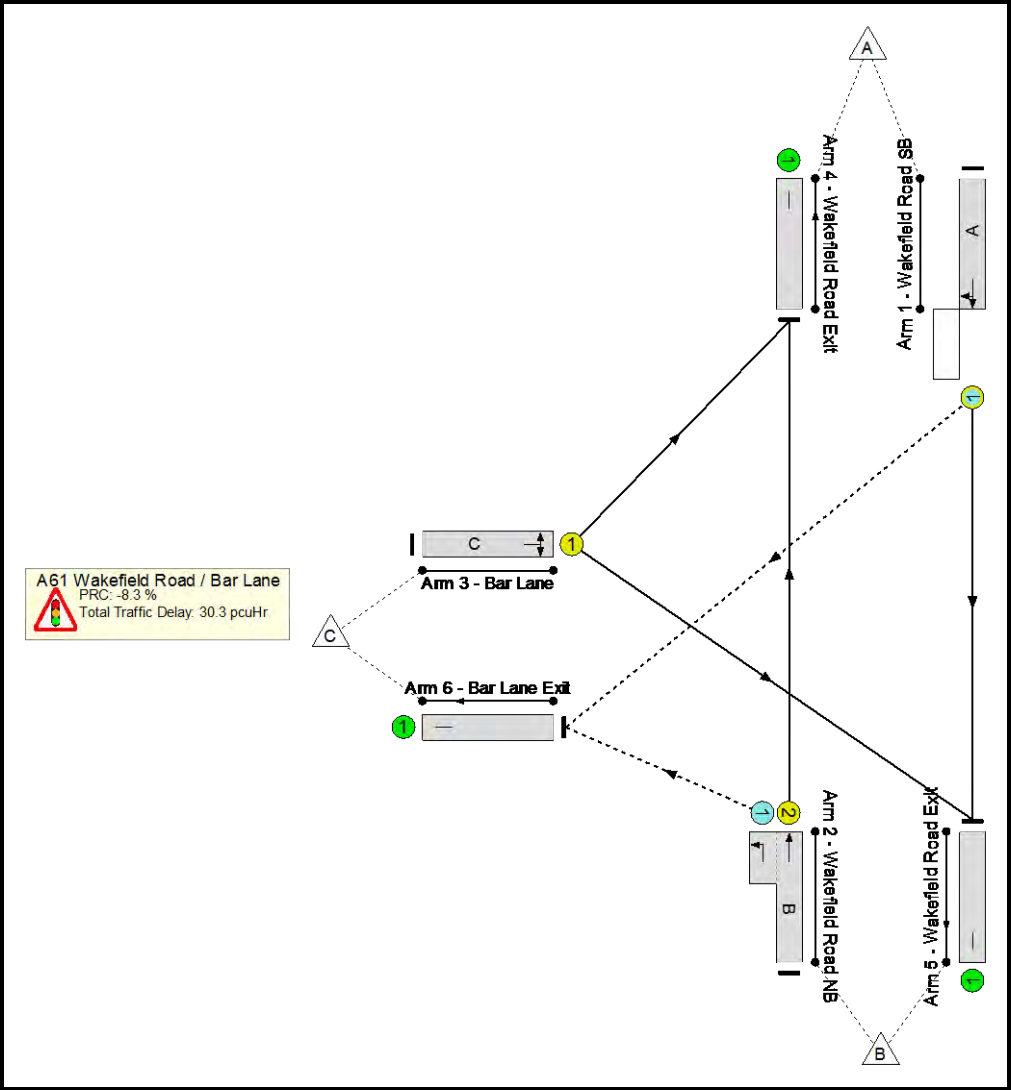
Stage	1	2
Duration	47	26
Change Point	0	55

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

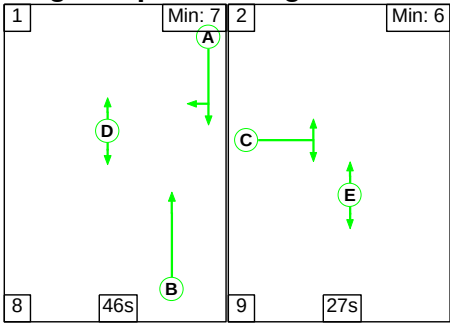
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: 2017 Existing	-	-	N/A	-	-		-	-	-	-	-	-	97.4%
A61 Wakefield Road / Bar Lane	-	-	N/A	-	-		-	-	-	-	-	-	97.4%
1/1	Wakefield Road SB Ahead Right	O	N/A	N/A	A		1	47	-	707	1942	1036	68.3%
2/2+2/1	Wakefield Road NB Ahead Left	U+O	N/A	N/A	B -		1	50	-	1225	1995:1985	1257	97.4%
3/1	Bar Lane Left Right	U	N/A	N/A	C		1	28	-	512	1677	540	94.8%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: 2017 Existing	-	-	546	107	1	11.8	18.5	0.0	30.3	-	-	-	-
A61 Wakefield Road / Bar Lane	-	-	546	107	1	11.8	18.5	0.0	30.3	-	-	-	-
1/1	707	707	39	0	1	3.0	1.1	0.0	4.1	20.9	13.0	1.1	14.0
2/2+2/1	1225	1225	506	107	0	4.5	11.2	-	15.7	46.2	26.5	11.2	37.7
3/1	512	512	-	-	-	4.2	6.3	-	10.5	73.8	12.4	6.3	18.6
C1 PRC for Signalled Lanes (%): -8.3 Total Delay for Signalled Lanes (pcuHr): 30.30 Cycle Time (s): 90 PRC Over All Lanes (%): -8.3 Total Delay Over All Lanes(pcuHr): 30.30													

Full Input Data And Results

Scenario 9: '2023 Predicted Saturday' (FG9: '2023 Predicted Saturday', Plan 1: 'Network Control Plan 1')

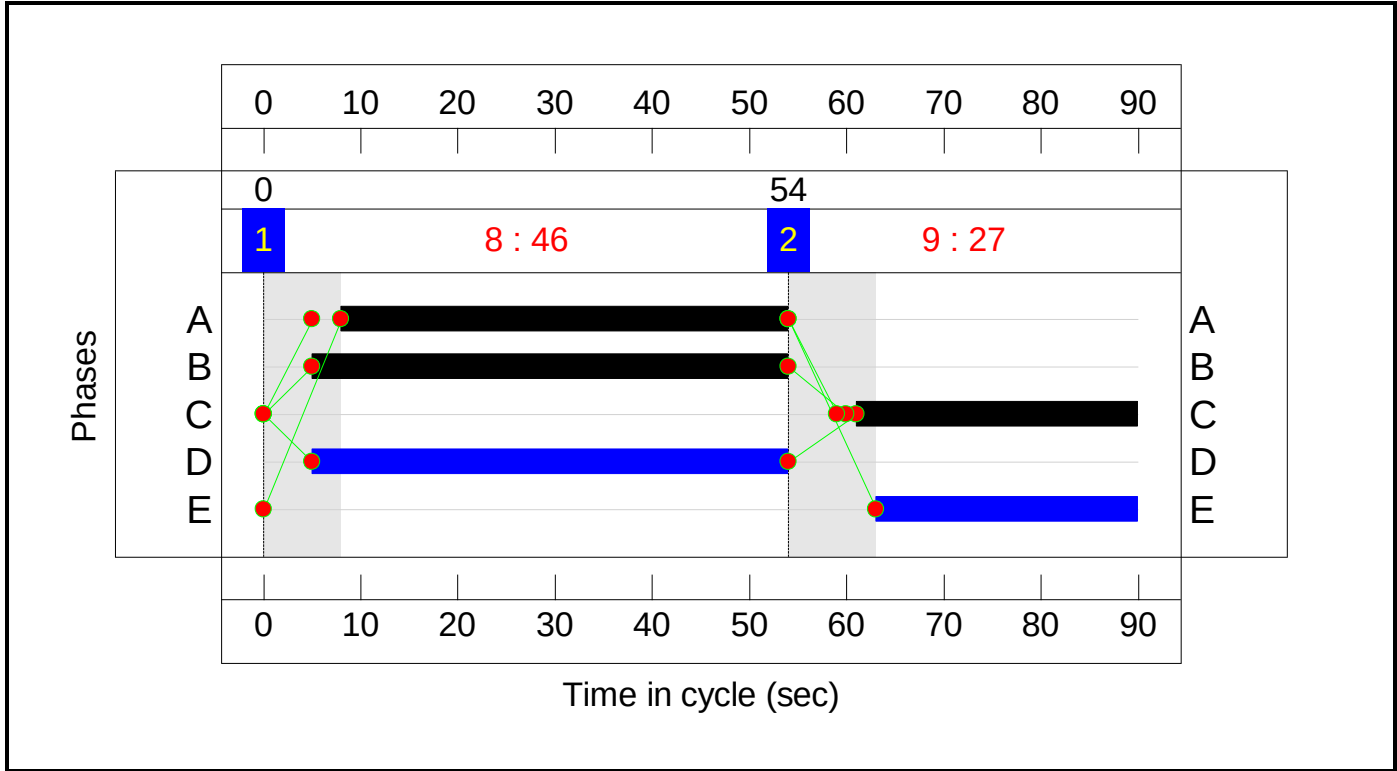
Stage Sequence Diagram



Stage Timings

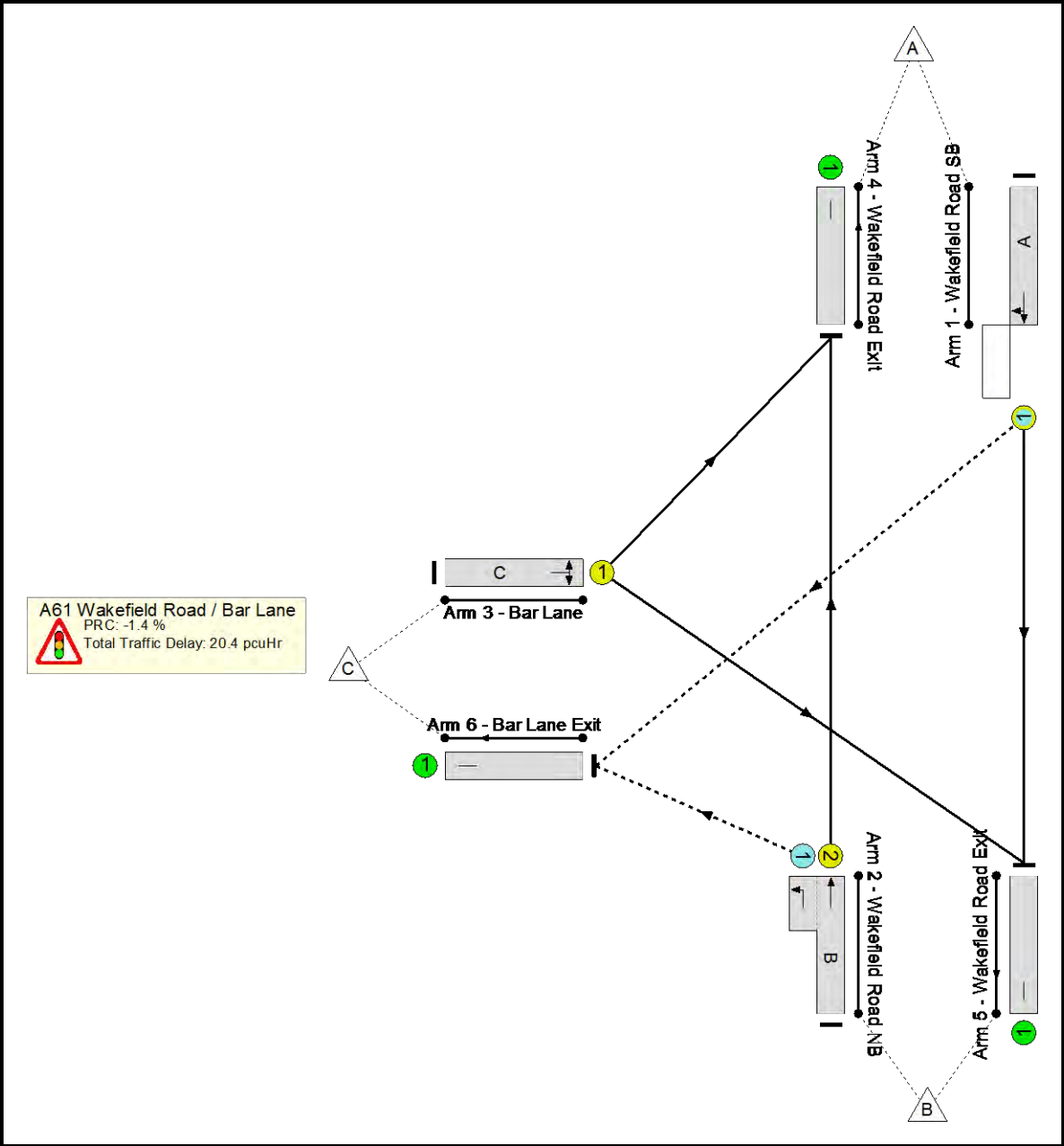
Stage	1	2
Duration	46	27
Change Point	0	54

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: 2017 Existing	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
A61 Wakefield Road / Bar Lane	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
1/1	Wakefield Road SB Ahead Right	O	N/A	N/A	A		1	46	-	601	1939	1013	59.4%
2/2+2/1	Wakefield Road NB Ahead Left	U+O	N/A	N/A	B -		1	49	-	1113	1995:1985	1219	91.3%
3/1	Bar Lane Left Right	U	N/A	N/A	C		1	29	-	510	1678	559	91.2%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: 2017 Existing	-	-	465	93	1	10.5	9.9	0.0	20.4	-	-	-	-
A61 Wakefield Road / Bar Lane	-	-	465	93	1	10.5	9.9	0.0	20.4	-	-	-	-
1/1	601	601	41	0	1	2.5	0.7	0.0	3.2	19.2	10.4	0.7	11.1
2/2+2/1	1113	1113	424	93	0	3.9	4.8	-	8.7	28.3	22.2	4.8	27.0
3/1	510	510	-	-	-	4.1	4.4	-	8.5	59.7	12.2	4.4	16.6
C1 PRC for Signalled Lanes (%): -1.4 Total Delay for Signalled Lanes (pcuHr): 20.41 Cycle Time (s): 90 PRC Over All Lanes (%): -1.4 Total Delay Over All Lanes(pcuHr): 20.41													

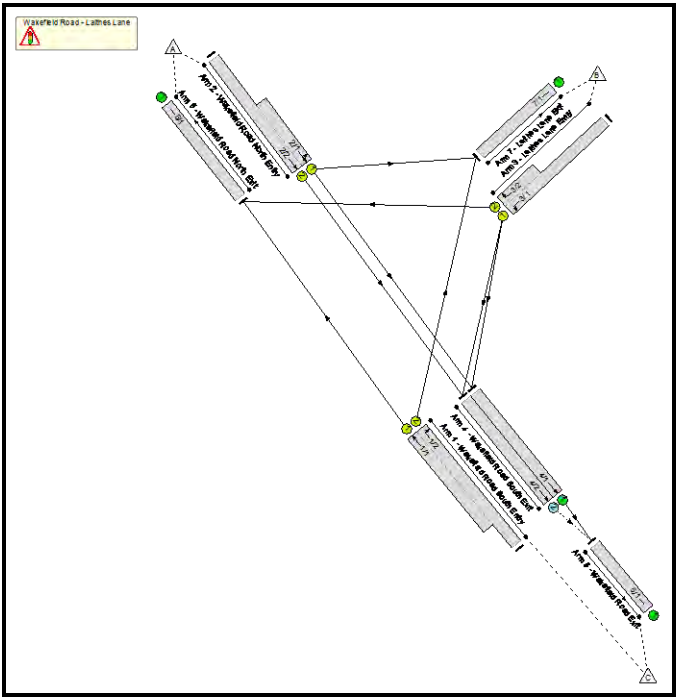
Full Input Data And Results

Full Input Data And Results

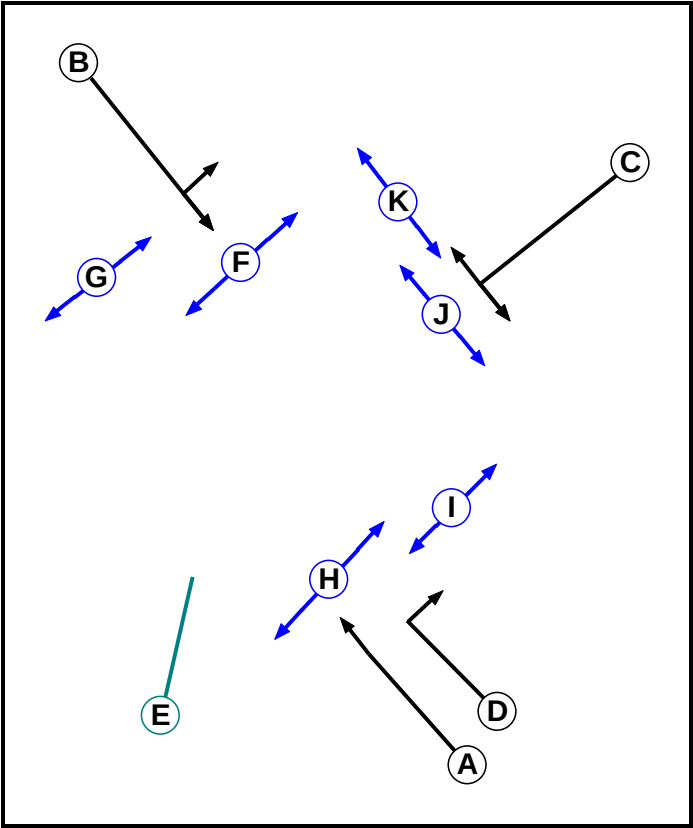
User and Project Details

Project:	Former William Freeman Works, Wakefield Road
Title:	Wakefield Road - Laithes Lane
Location:	
File name:	Wakefield Road - Laithes Lane.lsg3x
Author:	John Turner
Company:	Bryan G Hall
Address:	
Notes:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Dummy		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7
J	Pedestrian		7	7
K	Pedestrian		7	7

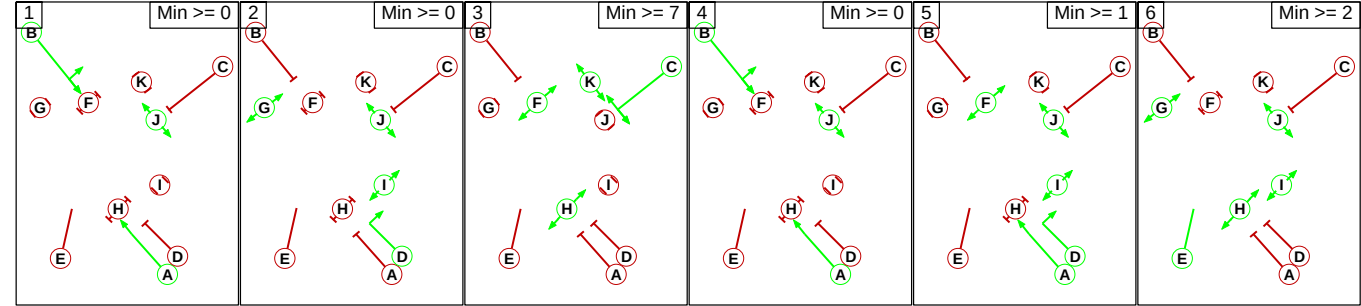
Phase Intergreens Matrix

Terminating Phase	Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K
	A		-	6	-	5	-	8	5	-	-	-
	B	-		8	5	5	5	-	-	9	-	7
	C	5	5		5	5	-	8	-	7	5	-
	D	-	7	5		5	-	-	5	-	-	7
	E	5	5	5	5		-	-	-	-	-	6
	F	-	8	-	-	-		10	-	-	-	-
	G	6	-	6	-	-	-		-	-	-	-
	H	8	-	-	6	-	-	-		-	-	-
	I	-	7	7	-	-	-	-	-		-	-
	J	-	-	7	-	-	-	-	-	-		-
	K	-	7	-	7	7	-	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B J
2	D G I J
3	C F H K
4	A B J
5	A D F I J
6	E G H I J

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage					
	1	2	3	4	5	6
	1		9	8	0	9
	2	7		7	7	6
	3	8	10		8	8
	4	0	9	8		9
	5	8	10	7	8	
	6	8	6	7	8	8

Full Input Data And Results

Give-Way Lane Input Data

Junction: Wakefield Road - Laithes Lane											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
4/2 (Wakefield Road South Exit)	5/1 (Ahead)	1439	0	4/1	1.09	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: Wakefield Road - Laithes Lane												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Wakefield Road South Entry)	U	A	2	3	22.6	Geom	-	3.25	0.00	Y	Arm 6 Ahead	Inf
1/2 (Wakefield Road South Entry)	U	D	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 7 Right	17.00
2/1 (Wakefield Road North Entry)	U	B	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
											Arm 7 Left	20.00
2/2 (Wakefield Road North Entry)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
3/1 (Laithes Lane Entry)	U	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 4 Left	14.00
3/2 (Laithes Lane Entry)	U	C	2	3	6.1	Geom	-	3.30	0.00	Y	Arm 6 Right	18.00
4/1 (Wakefield Road South Exit)	U		2	3	17.4	Geom	-	3.20	0.00	Y	Arm 5 Ahead	Inf
4/2 (Wakefield Road South Exit)	O		2	3	17.4	Geom	-	3.20	0.00	Y	Arm 5 Ahead	Inf
5/1 (Wakefield Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Wakefield Road North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Laithes Lane Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group		Start Time	End Time	Duration	Formula
7: '2023 Predicted AM'		07:45	08:45	01:00	
8: '2023 Predicted PM'		16:45	17:45	01:00	
9: '2023 Predicted Saturday'		11:45	12:45	01:00	

Scenario 7: '2023 Predicted AM' (FG7: '2023 Predicted AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	350	831	1181
	B	361	0	133	494
	C	721	163	0	884
	Tot.	1082	513	964	2559

Traffic Lane Flows

Lane	Scenario 7: 2023 Predicted AM
Junction: Wakefield Road - Laithes Lane	
1/1 (short)	721
1/2 (with short)	884(In) 163(Out)
2/1 (short)	591
2/2 (with short)	1181(In) 590(Out)
3/1 (with short)	494(In) 133(Out)
3/2 (short)	361
4/1	307
4/2	657
5/1	964
6/1	1082
7/1	513

Lane Saturation Flows

Junction: Wakefield Road - Laithes Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wakefield Road South Entry)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
1/2 (Wakefield Road South Entry)	3.25	0.00	Y	Arm 7 Right	17.00	100.0 %	1783	1783
2/1 (Wakefield Road North Entry)	3.50	0.00	Y	Arm 4 Ahead	Inf	40.8 %	1881	1881
				Arm 7 Left	20.00	59.2 %		
2/2 (Wakefield Road North Entry)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/1 (Laithes Lane Entry)	3.30	0.00	Y	Arm 4 Left	14.00	100.0 %	1757	1757
3/2 (Laithes Lane Entry)	3.30	0.00	Y	Arm 6 Right	18.00	100.0 %	1795	1795
4/1 (Wakefield Road South Exit)	3.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1935	1935
4/2 (Wakefield Road South Exit)	3.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1935	1935
5/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Wakefield Road North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Laithes Lane Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2023 Predicted PM' (FG8: '2023 Predicted PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	363	724	1087
	B	384	0	153	537
	C	915	185	0	1100
	Tot.	1299	548	877	2724

Traffic Lane Flows

Lane	Scenario 8: 2023 Predicted PM
Junction: Wakefield Road - Laithes Lane	
1/1 (short)	915
1/2 (with short)	1100(In) 185(Out)
2/1 (short)	544
2/2 (with short)	1087(In) 543(Out)
3/1 (with short)	537(In) 153(Out)
3/2 (short)	384
4/1	257
4/2	620
5/1	877
6/1	1299
7/1	548

Lane Saturation Flows

Junction: Wakefield Road - Laithes Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wakefield Road South Entry)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
1/2 (Wakefield Road South Entry)	3.25	0.00	Y	Arm 7 Right	17.00	100.0 %	1783	1783
2/1 (Wakefield Road North Entry)	3.50	0.00	Y	Arm 4 Ahead	Inf	33.3 %	1871	1871
				Arm 7 Left	20.00	66.7 %		
2/2 (Wakefield Road North Entry)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/1 (Laithes Lane Entry)	3.30	0.00	Y	Arm 4 Left	14.00	100.0 %	1757	1757
3/2 (Laithes Lane Entry)	3.30	0.00	Y	Arm 6 Right	18.00	100.0 %	1795	1795
4/1 (Wakefield Road South Exit)	3.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1935	1935
4/2 (Wakefield Road South Exit)	3.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1935	1935
5/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Wakefield Road North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Laithes Lane Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2023 Predicted Saturday' (FG9: '2023 Predicted Saturday', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	298	777	1075
	B	285	0	178	463
	C	826	206	0	1032
	Tot.	1111	504	955	2570

Traffic Lane Flows

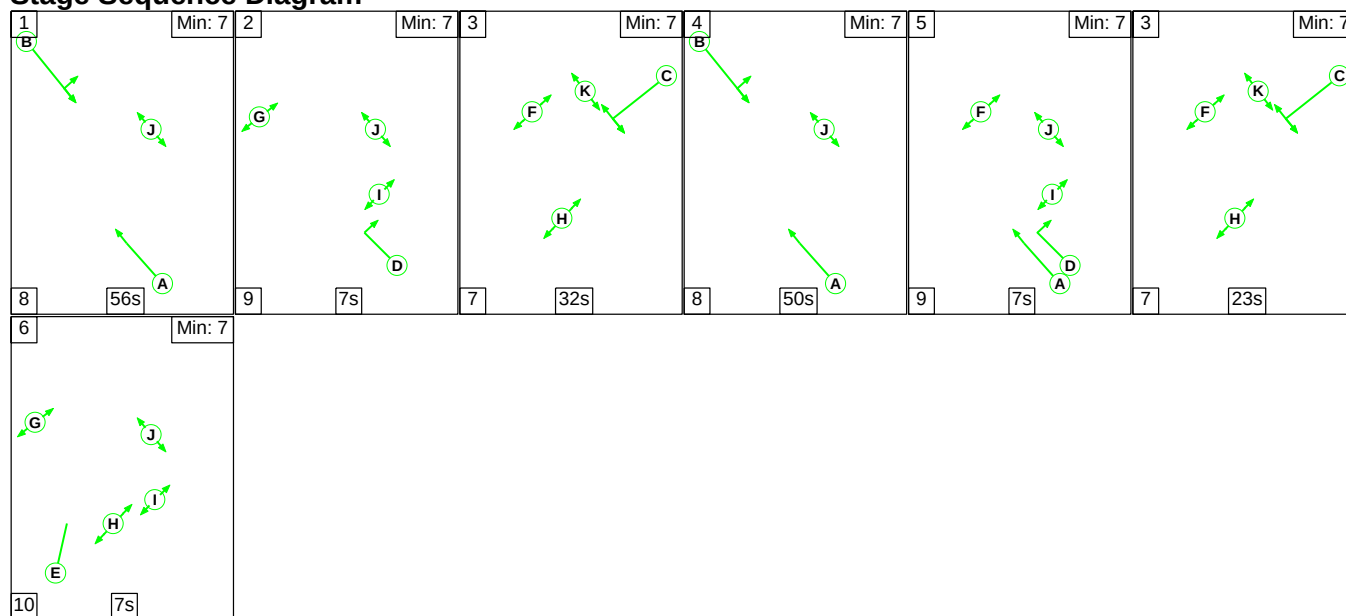
Lane	Scenario 9: 2023 Predicted Saturday
Junction: Wakefield Road - Laithes Lane	
1/1 (short)	826
1/2 (with short)	1032(In) 206(Out)
2/1 (short)	538
2/2 (with short)	1075(In) 537(Out)
3/1 (with short)	463(In) 178(Out)
3/2 (short)	285
4/1	329
4/2	626
5/1	955
6/1	1111
7/1	504

Lane Saturation Flows

Junction: Wakefield Road - Laithes Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wakefield Road South Entry)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
1/2 (Wakefield Road South Entry)	3.25	0.00	Y	Arm 7 Right	17.00	100.0 %	1783	1783
2/1 (Wakefield Road North Entry)	3.50	0.00	Y	Arm 4 Ahead	Inf	44.6 %	1887	1887
2/2 (Wakefield Road North Entry)	3.50	0.00	Y	Arm 7 Left	20.00	55.4 %	1887	1887
2/2 (Wakefield Road North Entry)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/1 (Laithes Lane Entry)	3.30	0.00	Y	Arm 4 Left	14.00	100.0 %	1757	1757
3/2 (Laithes Lane Entry)	3.30	0.00	Y	Arm 6 Right	18.00	100.0 %	1795	1795
4/1 (Wakefield Road South Exit)	3.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1935	1935
4/2 (Wakefield Road South Exit)	3.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1935	1935
5/1 (Wakefield Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Wakefield Road North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Laithes Lane Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2023 Predicted AM' (FG7: '2023 Predicted AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

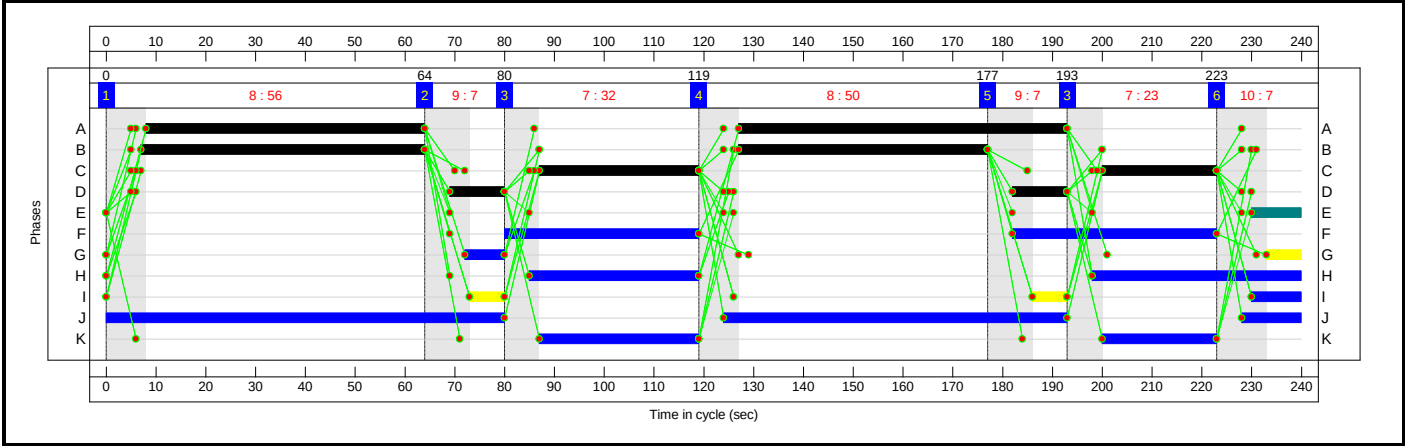


Full Input Data And Results

Stage Timings

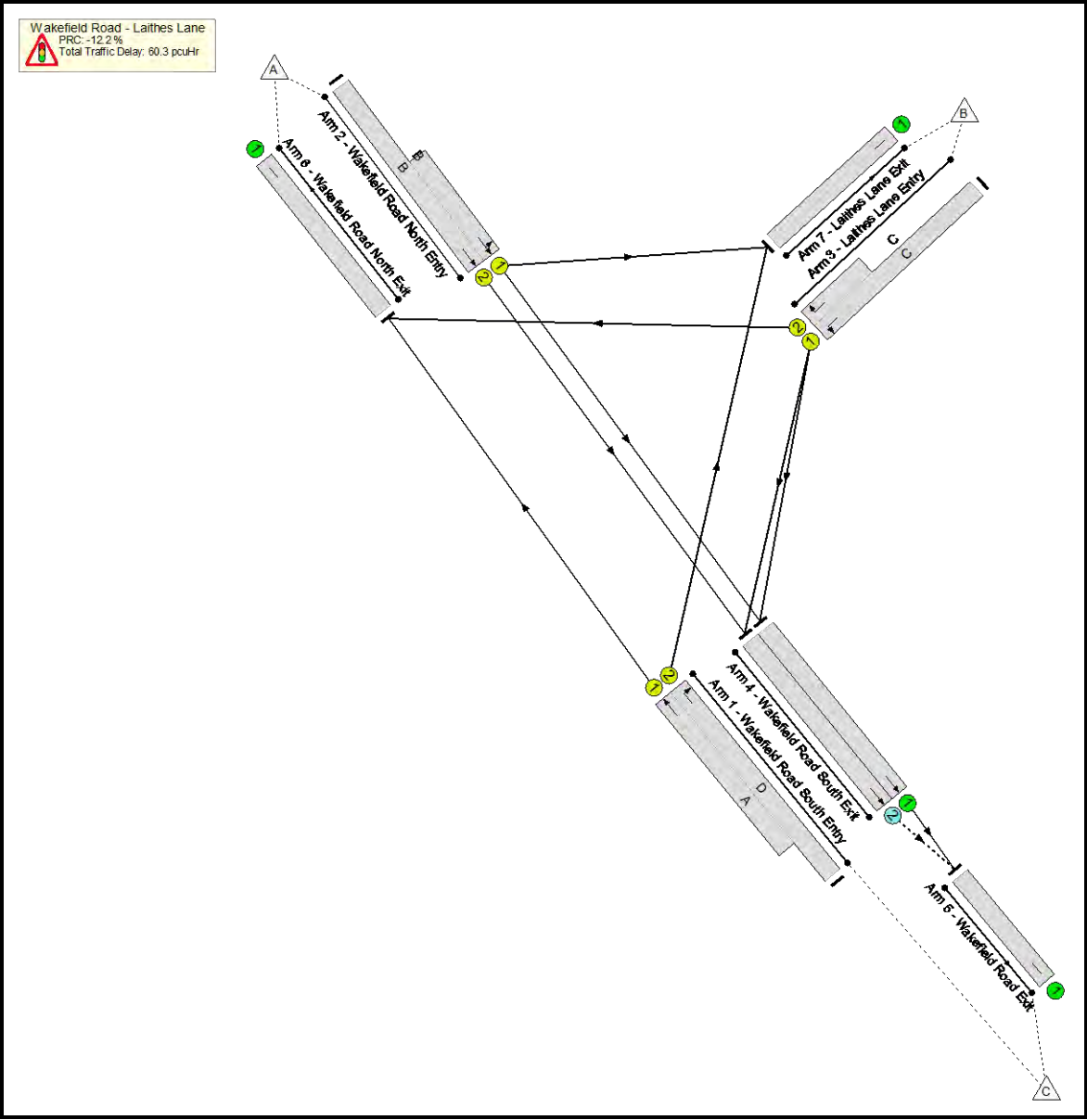
Stage	1	2	3	4	5	3	6
Duration	56	7	32	50	7	23	7
Change Point	0	64	80	119	177	193	223

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Wakefield Road - Laithes Lane	-	-	N/A	-	-		-	-	-	-	-	-	101.0%
Wakefield Road - Laithes Lane	-	-	N/A	-	-		-	-	-	-	-	-	101.0%
1/2+1/1	Wakefield Road South Entry Ahead Right	U	N/A	N/A	D A		2	22:122	-	884	1783:1940	1122	78.8%
2/2+2/1	Wakefield Road North Entry Ahead Left	U	N/A	N/A	B		2	107	-	1181	1965:1881	1169	101.0%
3/1+3/2	Laithes Lane Entry Left Right	U	N/A	N/A	C		2	55	-	494	1757:1795	495	99.9%
4/1	Wakefield Road South Exit Ahead	U	N/A	N/A	-		-	-	-	307	1935	1935	15.7%
4/2	Wakefield Road South Exit Ahead	O	N/A	N/A	-		-	-	-	657	1935	1107	58.8%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Wakefield Road - Laithes Lane	-	-	651	0	0	26.3	34.0	0.0	60.3	-	-	-	-
Wakefield Road - Laithes Lane	-	-	651	0	0	26.3	34.0	0.0	60.3	-	-	-	-
1/2+1/1	884	884	-	-	-	6.9	1.8	-	8.8	35.6	19.6	1.8	21.5
2/2+2/1	1181	1169	-	-	-	10.7	20.4	-	31.1	94.6	35.2	20.4	55.6
3/1+3/2	494	494	-	-	-	6.2	10.9	-	17.1	124.6	16.3	10.9	27.2
4/1	305	305	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
4/2	651	651	651	0	0	2.6	0.7	-	3.3	18.3	19.8	0.7	20.5

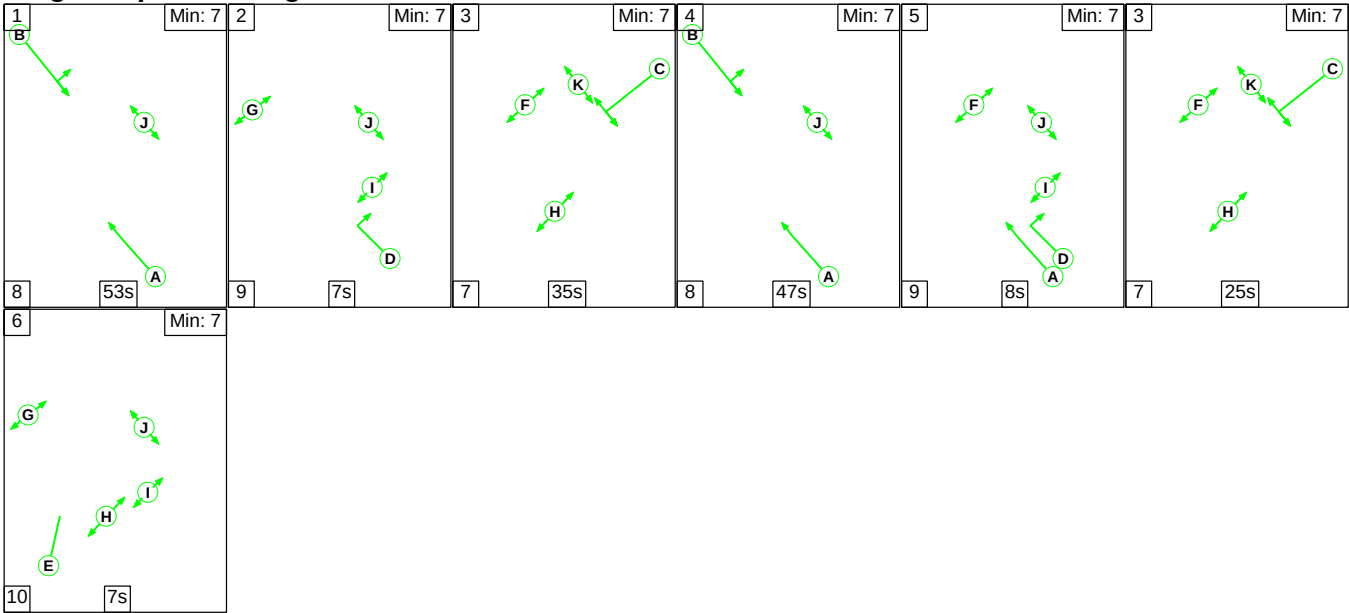
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-12.2	Total Delay for Signalled Lanes (pcuHr):	56.90	Cycle Time (s):	240
	PRC Over All Lanes (%):	-12.2	Total Delay Over All Lanes(pcuHr):	60.30		

Full Input Data And Results

Scenario 8: '2023 Predicted PM' (FG8: '2023 Predicted PM', Plan 1: 'Network Control Plan 1')

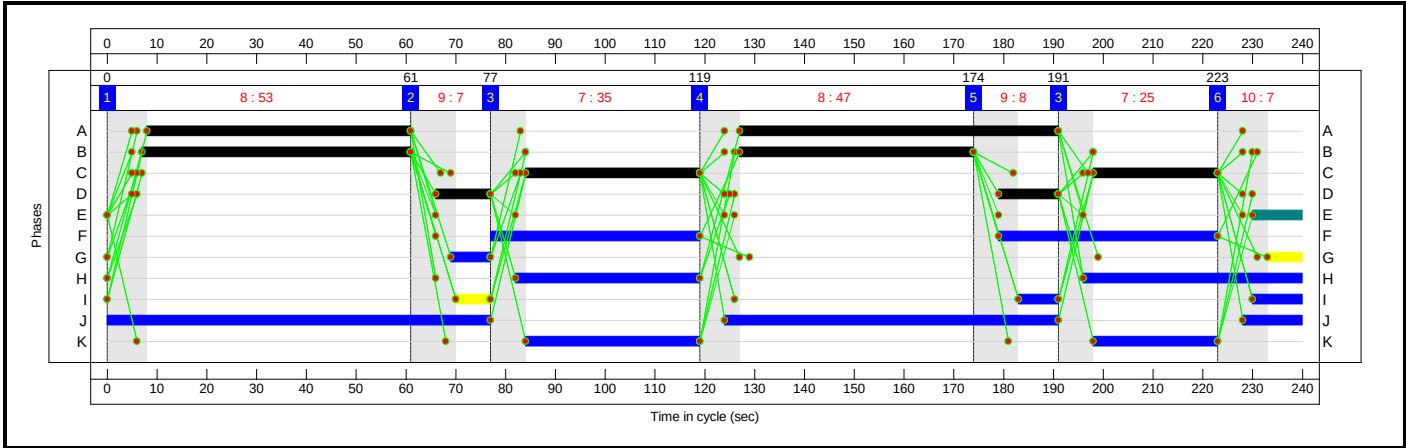
Stage Sequence Diagram



Stage Timings

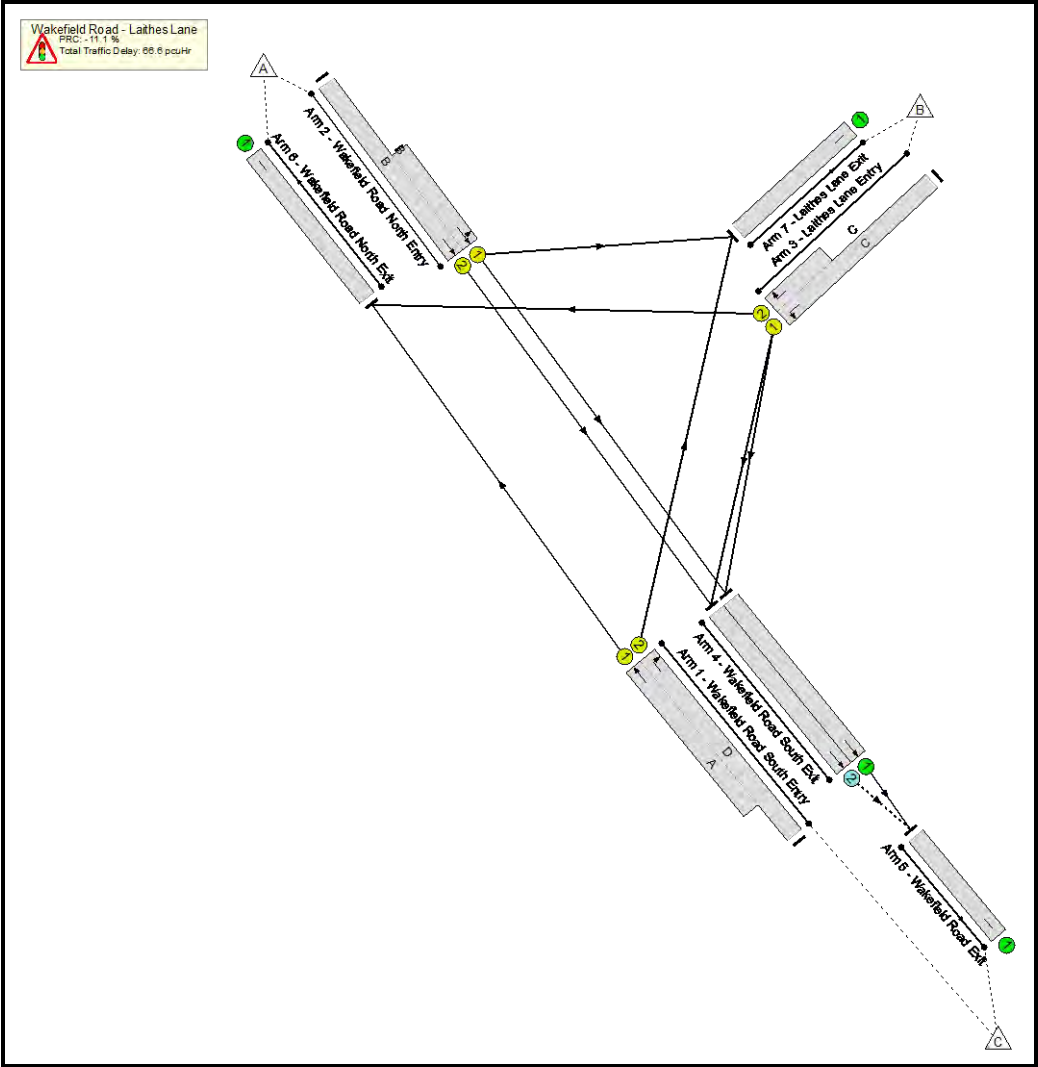
Stage	1	2	3	4	5	3	6
Duration	53	7	35	47	8	25	7
Change Point	0	61	77	119	174	191	223

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Wakefield Road - Laithes Lane	-	-	N/A	-	-		-	-	-	-	-	-	99.9%
Wakefield Road - Laithes Lane	-	-	N/A	-	-		-	-	-	-	-	-	99.9%
1/2+1/1	Wakefield Road South Entry Ahead Right	U	N/A	N/A	D A		2	23:117	-	1100	1783:1940	1101	99.9%
2/2+2/1	Wakefield Road North Entry Ahead Left	U	N/A	N/A	B		2	101	-	1087	1965:1871	1120	97.1%
3/1+3/2	Laithes Lane Entry Left Right	U	N/A	N/A	C		2	60	-	537	1757:1795	537	99.9%
4/1	Wakefield Road South Exit Ahead	U	N/A	N/A	-		-	-	-	257	1935	1935	13.3%
4/2	Wakefield Road South Exit Ahead	O	N/A	N/A	-		-	-	-	620	1935	1159	53.5%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Wakefield Road - Laithes Lane	-	-	620	0	0	27.8	38.7	0.0	66.6	-	-	-	-
Wakefield Road - Laithes Lane	-	-	620	0	0	27.8	38.7	0.0	66.6	-	-	-	-
1/2+1/1	1100	1100	-	-	-	10.6	16.3	-	27.0	88.3	35.4	16.3	51.8
2/2+2/1	1087	1087	-	-	-	8.8	10.2	-	19.0	63.0	27.6	10.2	37.8
3/1+3/2	537	537	-	-	-	6.5	11.5	-	18.0	120.9	17.8	11.5	29.3
4/1	257	257	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
4/2	620	620	620	0	0	1.9	0.6	-	2.4	14.2	18.6	0.6	19.1

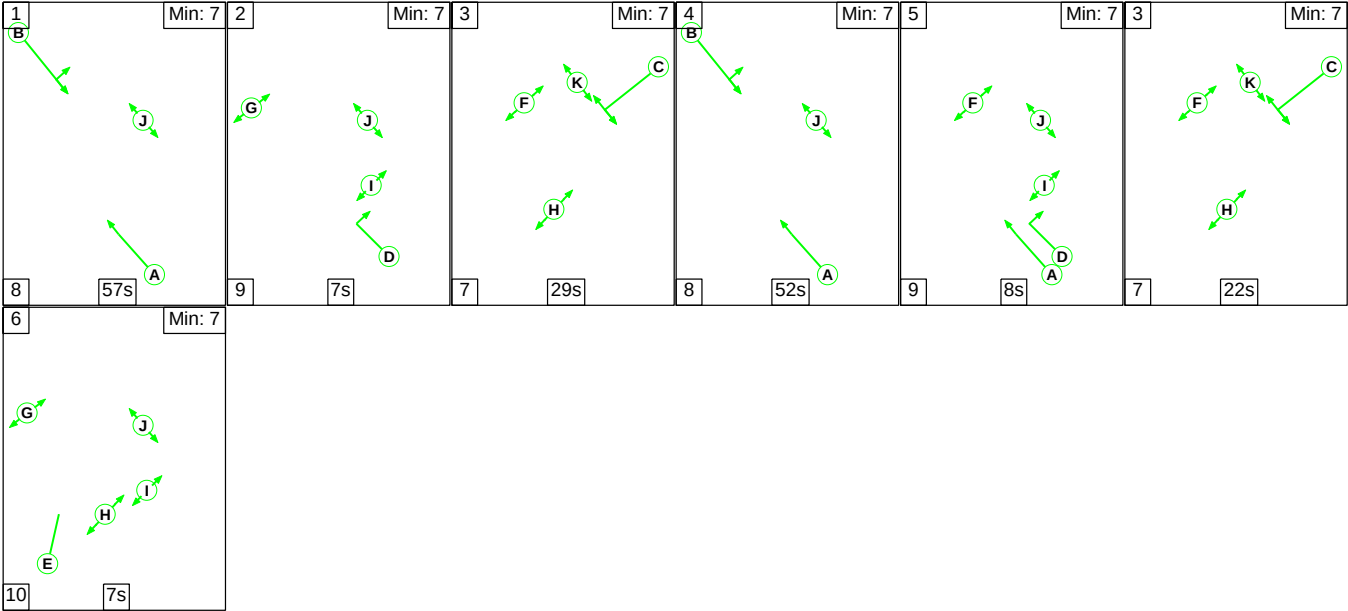
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-11.1	Total Delay for Signalled Lanes (pcuHr):	64.03	Cycle Time (s):	240
	PRC Over All Lanes (%):	-11.1	Total Delay Over All Lanes(pcuHr):	66.55		

Full Input Data And Results

Scenario 9: '2023 Predicted Saturday' (FG9: '2023 Predicted Saturday', Plan 1: 'Network Control Plan 1')

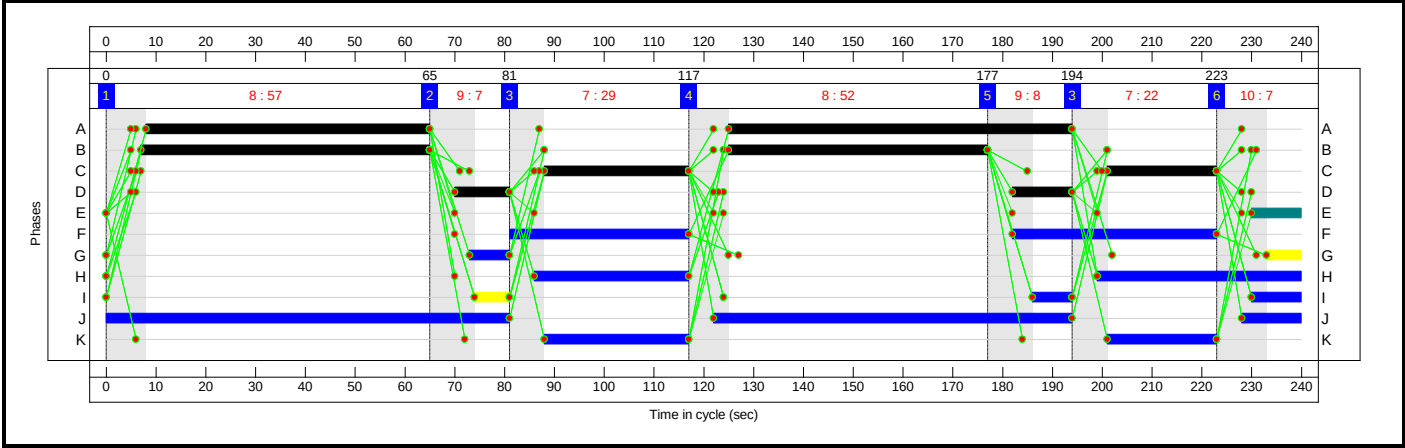
Stage Sequence Diagram



Stage Timings

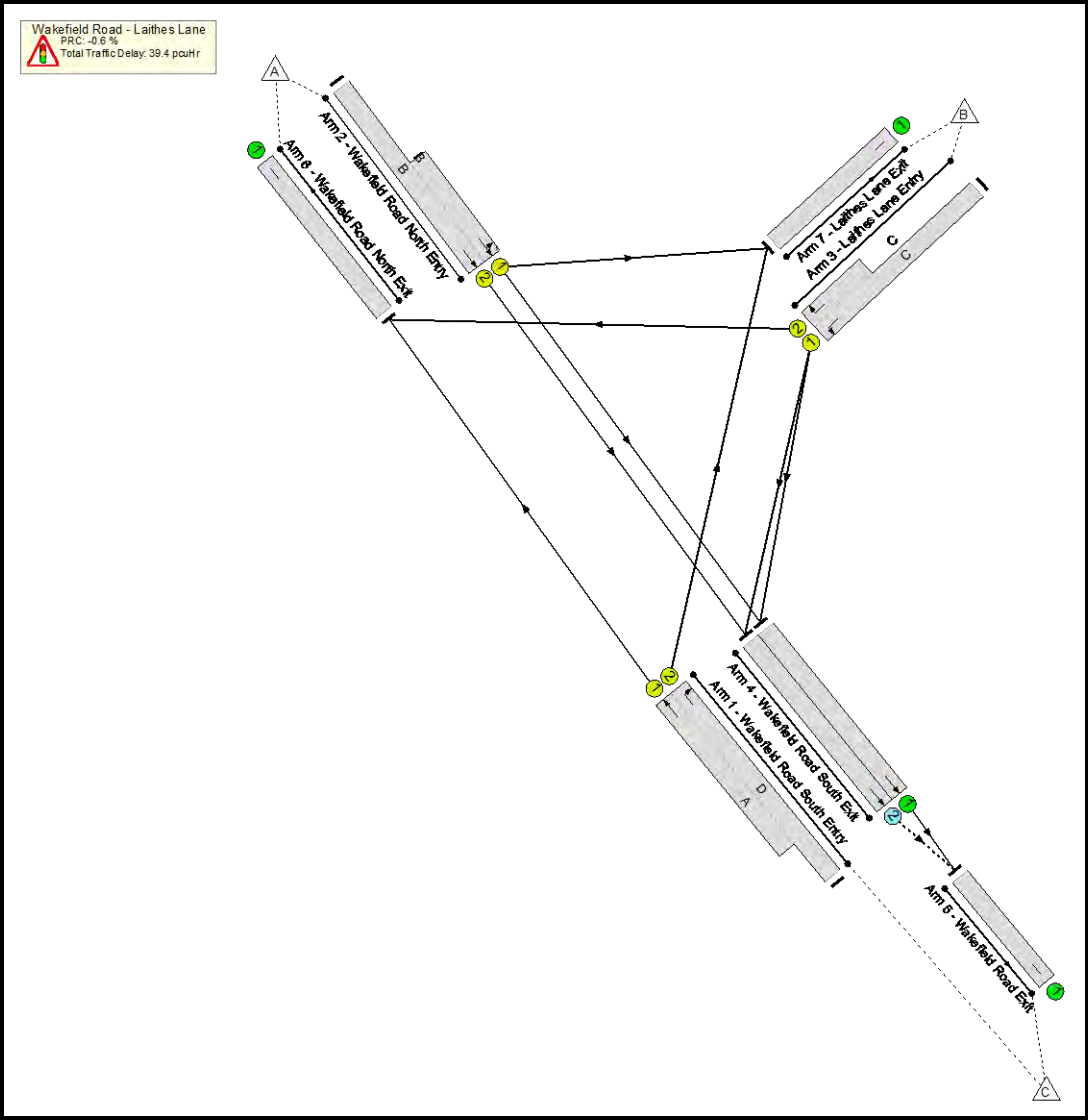
Stage	1	2	3	4	5	3	6
Duration	57	7	29	52	8	22	7
Change Point	0	65	81	117	177	194	223

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Wakefield Road - Laithes Lane	-	-	N/A	-	-		-	-	-	-	-	-	90.5%
Wakefield Road - Laithes Lane	-	-	N/A	-	-		-	-	-	-	-	-	90.5%
1/2+1/1	Wakefield Road South Entry Ahead Right	U	N/A	N/A	D A		2	23:126	-	1032	1783:1940	1149	89.8%
2/2+2/1	Wakefield Road North Entry Ahead Left	U	N/A	N/A	B		2	110	-	1075	1965:1887	1194	90.0%
3/1+3/2	Laithes Lane Entry Left Right	U	N/A	N/A	C		2	51	-	463	1757:1795	511	90.5%
4/1	Wakefield Road South Exit Ahead	U	N/A	N/A	-		-	-	-	329	1935	1935	17.0%
4/2	Wakefield Road South Exit Ahead	O	N/A	N/A	-		-	-	-	626	1935	1080	57.9%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Wakefield Road - Laithes Lane	-	-	626	0	0	26.2	13.2	0.0	39.4	-	-	-	-
Wakefield Road - Laithes Lane	-	-	626	0	0	26.2	13.2	0.0	39.4	-	-	-	-
1/2+1/1	1032	1012	-	-	-	10.6	4.1	-	14.7	51.3	23.7	4.1	27.9
2/2+2/1	1075	1075	-	-	-	7.4	4.2	-	11.6	38.9	24.5	4.2	28.7
3/1+3/2	463	463	-	-	-	5.6	4.1	-	9.7	75.7	12.8	4.1	16.9
4/1	329	329	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
4/2	626	626	626	0	0	2.5	0.7	-	3.2	18.3	18.5	0.7	19.2

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-0.6	Total Delay for Signalled Lanes (pcuHr):	36.08	Cycle Time (s):	240
	PRC Over All Lanes (%):	-0.6	Total Delay Over All Lanes(pcuHr):	39.36		

Junctions 9			
ARCADY 9 - Roundabout Module			
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Filename: A61 Wakefield Road-A633 Rotherham Road mini-Roundabout.j9

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 9

Report generation date: 08/01/2018 09:04:59

«2023 Predicted, AM

»Junction Network

»Arms

»Traffic Demand

»Origin-Destination Data

»Vehicle Mix

»Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2023 Predicted				
1 - A61 North	1.5	4.78	0.60	A
2 - A633 Rotherham Road	11.2	84.06	0.96	F
3 - A61 South	1.3	8.78	0.58	A

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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	A61 Wakefield Road/A633 Rotherham Road
Location	Mapplewell, Barnsley
Site number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	BRYANGHALL\design
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2023 Predicted	AM	ONE HOUR	07:30	09:00	15

2023 Predicted, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	24.21	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	A61 North	
2	A633 Rotherham Road	
3	A61 South	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A61 North	4.50	4.50	6.50	27.0	20.00	20.00	0.0	✓
2 - A633 Rotherham Road	4.00	4.00	6.20	6.0	9.70	2.00	0.0	✓
3 - A61 South	4.20	4.20	5.10	1.5	20.00	20.00	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A61 North	0.901	1905
2 - A633 Rotherham Road	0.556	970
3 - A61 South	0.840	1381

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A61 North		✓	1009	100.000
2 - A633 Rotherham Road		✓	458	100.000
3 - A61 South		✓	505	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A61 North	2 - A633 Rotherham Road	3 - A61 South
1 - A61 North		0	282	727
2 - A633 Rotherham Road		458	0	0
3 - A61 South		464	41	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A61 North	2 - A633 Rotherham Road	3 - A61 South
1 - A61 North		0	0	0
2 - A633 Rotherham Road		0	0	0
3 - A61 South		0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - A61 North	0.60	4.78	1.5	A
2 - A633 Rotherham Road	0.96	84.06	11.2	F
3 - A61 South	0.58	8.78	1.3	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	760	31	1878	0.405	757	0.7	3.204	A
2 - A633 Rotherham Road	345	545	667	0.517	341	1.0	10.902	B
3 - A61 South	380	341	1095	0.347	378	0.5	5.011	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	907	37	1872	0.485	906	0.9	3.723	A
2 - A633 Rotherham Road	412	653	607	0.678	408	2.0	17.734	C
3 - A61 South	454	408	1038	0.437	453	0.8	6.144	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	1111	45	1865	0.596	1109	1.5	4.749	A
2 - A633 Rotherham Road	504	799	526	0.959	478	8.6	56.433	F
3 - A61 South	556	478	979	0.568	554	1.3	8.418	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	1111	45	1865	0.596	1111	1.5	4.776	A
2 - A633 Rotherham Road	504	800	525	0.960	494	11.2	84.056	F
3 - A61 South	556	494	966	0.576	556	1.3	8.776	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	907	37	1872	0.485	909	0.9	3.746	A
2 - A633 Rotherham Road	412	655	606	0.679	447	2.3	27.070	D
3 - A61 South	454	447	1005	0.452	456	0.8	6.585	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	760	31	1877	0.405	761	0.7	3.226	A
2 - A633 Rotherham Road	345	548	665	0.518	349	1.1	11.559	B
3 - A61 South	380	349	1087	0.350	381	0.5	5.110	A

Junctions 9			
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Filename: A61 Wakefield Road-A633 Rotherham Road mini-Roundabout.j9

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 9

Report generation date: 08/01/2018 09:05:37

«2023 Predicted, PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2023 Predicted				
1 - A61 North	1.2	4.29	0.54	A
2 - A633 Rotherham Road	1.9	15.51	0.66	C
3 - A61 South	7.9	33.47	0.90	D

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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	A61 Wakefield Road/A633 Rotherham Road
Location	Mapplewell, Barnsley
Site number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	BRYANGHALL\design
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2023 Predicted	PM	ONE HOUR	16:30	18:00	15

2023 Predicted, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 81% of the total flow for the roundabout for one or more time segments]
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	17.71	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	A61 North	
2	A633 Rotherham Road	
3	A61 South	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A61 North	4.50	4.50	6.50	27.0	20.00	20.00	0.0	✓
2 - A633 Rotherham Road	4.00	4.00	6.20	6.0	9.70	2.00	0.0	✓
3 - A61 South	4.20	4.20	5.10	1.5	20.00	20.00	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A61 North	0.901	1905
2 - A633 Rotherham Road	0.556	970
3 - A61 South	0.840	1381

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A61 North		✓	905	100.000
2 - A633 Rotherham Road		✓	404	100.000
3 - A61 South		✓	827	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A61 North	2 - A633 Rotherham Road	3 - A61 South
From	1 - A61 North	0	425	480
	2 - A633 Rotherham Road	404	0	0
	3 - A61 South	757	70	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A61 North	2 - A633 Rotherham Road	3 - A61 South
From	1 - A61 North	0	0	0
	2 - A633 Rotherham Road	0	0	0
	3 - A61 South	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - A61 North	0.54	4.29	1.2	A
2 - A633 Rotherham Road	0.66	15.51	1.9	C
3 - A61 South	0.90	33.47	7.9	D

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	681	52	1858	0.367	679	0.6	3.049	A
2 - A633 Rotherham Road	304	360	770	0.395	302	0.6	7.648	A
3 - A61 South	623	302	1127	0.552	618	1.2	7.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	814	63	1849	0.440	813	0.8	3.471	A
2 - A633 Rotherham Road	363	431	730	0.497	362	1.0	9.735	A
3 - A61 South	743	362	1077	0.690	740	2.2	10.563	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	996	75	1837	0.542	995	1.2	4.266	A
2 - A633 Rotherham Road	445	528	677	0.657	441	1.8	15.075	C
3 - A61 South	911	441	1010	0.902	891	7.0	26.803	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	996	77	1836	0.543	996	1.2	4.287	A
2 - A633 Rotherham Road	445	528	676	0.658	445	1.9	15.511	C
3 - A61 South	911	445	1007	0.904	907	7.9	33.469	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	814	65	1847	0.441	815	0.8	3.494	A
2 - A633 Rotherham Road	363	432	730	0.498	367	1.0	10.009	B
3 - A61 South	743	367	1073	0.693	766	2.3	12.513	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	681	53	1857	0.367	682	0.6	3.067	A
2 - A633 Rotherham Road	304	362	769	0.396	306	0.7	7.795	A
3 - A61 South	623	306	1124	0.554	627	1.3	7.302	A

Junctions 9			
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Filename: A61 Wakefield Road-A633 Rotherham Road mini-Roundabout.j9

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 9

Report generation date: 08/01/2018 09:06:17

«2023 Predicted, Saturday

»Junction Network

»Arms

»Traffic Demand

»Origin-Destination Data

»Vehicle Mix

»Results

Summary of junction performance

	Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS
2023 Predicted				
1 - A61 North	1.5	4.79	0.59	A
2 - A633 Rotherham Road	2.8	24.57	0.75	C
3 - A61 South	3.6	16.52	0.79	C

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

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	A61 Wakefield Road/A633 Rotherham Road
Location	Mapplewell, Barnsley
Site number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	BRYANGHALL\design
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2023 Predicted	Saturday	ONE HOUR	11:30	13:00	15

2023 Predicted, Saturday

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 81% of the total flow for the roundabout for one or more time segments]
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	12.47	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	A61 North	
2	A633 Rotherham Road	
3	A61 South	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A61 North	4.50	4.50	6.50	27.0	20.00	20.00	0.0	✓
2 - A633 Rotherham Road	4.00	4.00	6.20	6.0	9.70	2.00	0.0	✓
3 - A61 South	4.20	4.20	5.10	1.5	20.00	20.00	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A61 North	0.901	1905
2 - A633 Rotherham Road	0.556	970
3 - A61 South	0.840	1381

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A61 North		✓	1000	100.000
2 - A633 Rotherham Road		✓	390	100.000
3 - A61 South		✓	731	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A61 North	2 - A633 Rotherham Road	3 - A61 South
From	1 - A61 North	0	353	647
	2 - A633 Rotherham Road	390	0	0
	3 - A61 South	678	53	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A61 North	2 - A633 Rotherham Road	3 - A61 South
From	1 - A61 North	0	0	0
	2 - A633 Rotherham Road	0	0	0
	3 - A61 South	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - A61 North	0.59	4.79	1.5	A
2 - A633 Rotherham Road	0.75	24.57	2.8	C
3 - A61 South	0.79	16.52	3.6	C

Main Results for each time segment

11:30 - 11:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	753	40	1869	0.403	750	0.7	3.208	A
2 - A633 Rotherham Road	294	485	700	0.419	291	0.7	8.734	A
3 - A61 South	550	291	1136	0.484	547	0.9	6.066	A

11:45 - 12:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	899	47	1862	0.483	898	0.9	3.729	A
2 - A633 Rotherham Road	351	581	647	0.542	349	1.2	11.999	B
3 - A61 South	657	349	1088	0.604	655	1.5	8.275	A

12:00 - 12:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	1101	58	1853	0.594	1099	1.4	4.760	A
2 - A633 Rotherham Road	429	711	575	0.747	423	2.7	22.864	C
3 - A61 South	805	423	1025	0.785	797	3.4	15.305	C

12:15 - 12:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	1101	58	1853	0.594	1101	1.5	4.789	A
2 - A633 Rotherham Road	429	712	574	0.748	429	2.8	24.566	C
3 - A61 South	805	429	1020	0.789	804	3.6	16.522	C

12:30 - 12:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	899	48	1862	0.483	901	0.9	3.754	A
2 - A633 Rotherham Road	351	583	646	0.543	357	1.2	12.715	B
3 - A61 South	657	357	1081	0.608	665	1.6	8.818	A

12:45 - 13:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - A61 North	753	40	1869	0.403	754	0.7	3.230	A
2 - A633 Rotherham Road	294	488	699	0.420	296	0.7	8.969	A
3 - A61 South	550	296	1132	0.486	553	1.0	6.237	A

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Left Turn from Rotherham Road to Wakefield Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Left Turn from Rotherham Road to Wakefield Road

Report generation date: 08/01/2018 09:14:05

« (Default Analysis Set) - 2023 Predicted, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - 2023 Predicted				
Stream B-A-C	0.39	9.21	0.28	A
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2017 Existing, AM" model duration: 07:30 - 09:00

"D2 - 2017 Existing, PM" model duration: 16:30 - 18:00

"D3 - 2017 Existing, Saturday" model duration: 16:30 - 18:00

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 16:30 - 18:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 16:30 - 18:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 16:30 - 18:00

Run using Junctions 8.0.5.523 at 08/01/2018 09:14:05

File summary

Title	Left Turn from Rotherham Road to Wakefield Road Southbound
Location	Mapplewell, Barnsley
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	johnturner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - 2023 Predicted, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, AM	2023 Predicted	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	9.21	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
A61 North	A	A61 North		Major
Rotherham Road Left Turn	B	Rotherham Road Left Turn		Minor
A61 South	C	A61 South		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A61 South	8.00		0.00		2.20	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

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Rotherham Road Left Turn	One lane	5.00										0	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	582.214	0.097	0.245	0.154	0.350
1	B-C	760.204	0.106	0.269	-	-
1	C-B	573.963	0.203	0.203	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A61 North	ONE HOUR	✓	727.00	100.000
Rotherham Road Left Turn	ONE HOUR	✓	140.00	100.000
A61 South	ONE HOUR	✓	464.00	100.000

Turning Proportions

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

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.000	0.000	727.000
	Rotherham Road Left Turn	0.000	0.000	140.000
	A61 South	464.000	0.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.00	0.00	1.00
	Rotherham Road Left Turn	0.00	0.00	1.00
	A61 South	1.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	1.000	1.000	1.000
	Rotherham Road Left Turn	1.000	1.000	1.000
	A61 South	1.000	1.000	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.0	0.0	0.0
	Rotherham Road Left Turn	0.0	0.0	0.0
	A61 South	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.28	9.21	0.39	A
C-A	-	-	-	-
C-B	0.00	0.00	0.00	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	105.40	104.58	0.00	613.02	0.172	0.21	7.068	A
C-A	349.32	349.32	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	462.84	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	547.32	547.32	0.00	-	-	-	-	-

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	125.86	125.59	0.00	584.45	0.215	0.27	7.839	A
C-A	417.13	417.13	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	441.27	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	653.56	653.56	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	154.14	153.67	0.00	544.95	0.283	0.39	9.189	A
C-A	510.87	510.87	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	411.45	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	800.44	800.44	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	154.14	154.13	0.00	544.95	0.283	0.39	9.211	A
C-A	510.87	510.87	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	411.45	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	800.44	800.44	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	125.86	126.31	0.00	584.45	0.215	0.28	7.867	A
C-A	417.13	417.13	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	441.27	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	653.56	653.56	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	105.40	105.67	0.00	613.02	0.172	0.21	7.098	A
C-A	349.32	349.32	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	462.84	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	547.32	547.32	0.00	-	-	-	-	-

Junctions 8				
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Filename: Left Turn from Rotherham Road to Wakefield Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Left Turn from Rotherham Road to Wakefield Road

Report generation date: 08/01/2018 09:14:38

« (Default Analysis Set) - 2023 Predicted, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - 2023 Predicted				
Stream B-A-C	0.12	6.52	0.11	A
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2017 Existing, AM" model duration: 07:30 - 09:00

"D2 - 2017 Existing, PM" model duration: 16:30 - 18:00

"D3 - 2017 Existing, Saturday" model duration: 16:30 - 18:00

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 16:30 - 18:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM " model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 16:30 - 18:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 16:30 - 18:00

Run using Junctions 8.0.5.523 at 08/01/2018 09:14:38

File summary

Title	Left Turn from Rotherham Road to Wakefield Road Southbound
Location	Mapplewell, Barnsley
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	johnturner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - 2023 Predicted, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, PM	2023 Predicted	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	6.52	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
A61 North	A	A61 North		Major
Rotherham Road Left Turn	B	Rotherham Road Left Turn		Minor
A61 South	C	A61 South		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A61 South	8.00		0.00		2.20	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

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Rotherham Road Left Turn	One lane	5.00										0	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	582.214	0.097	0.245	0.154	0.350
1	B-C	760.204	0.106	0.269	-	-
1	C-B	573.963	0.203	0.203	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A61 North	ONE HOUR	✓	480.00	100.000
Rotherham Road Left Turn	ONE HOUR	✓	60.00	100.000
A61 South	ONE HOUR	✓	757.00	100.000

Turning Proportions

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

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.000	0.000	480.000
	Rotherham Road Left Turn	0.000	0.000	60.000
	A61 South	757.000	0.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.00	0.00	1.00
	Rotherham Road Left Turn	0.00	0.00	1.00
	A61 South	1.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	1.000	1.000	1.000
	Rotherham Road Left Turn	1.000	1.000	1.000
	A61 South	1.000	1.000	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.0	0.0	0.0
	Rotherham Road Left Turn	0.0	0.0	0.0
	A61 South	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.11	6.52	0.12	A
C-A	-	-	-	-
C-B	0.00	0.00	0.00	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	45.17	44.88	0.00	663.03	0.068	0.07	5.821	A
C-A	569.91	569.91	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	500.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	361.37	361.37	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	53.94	53.87	0.00	644.16	0.084	0.09	6.098	A
C-A	680.53	680.53	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	486.35	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	431.51	431.51	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	66.06	65.95	0.00	618.09	0.107	0.12	6.518	A
C-A	833.47	833.47	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	466.66	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	528.49	528.49	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	66.06	66.06	0.00	618.09	0.107	0.12	6.520	A
C-A	833.47	833.47	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	466.66	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	528.49	528.49	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	53.94	54.05	0.00	644.16	0.084	0.09	6.100	A
C-A	680.53	680.53	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	486.35	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	431.51	431.51	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	45.17	45.24	0.00	663.03	0.068	0.07	5.827	A
C-A	569.91	569.91	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	500.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	361.37	361.37	0.00	-	-	-	-	-

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Left Turn from Rotherham Road to Wakefield Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Left Turn from Rotherham Road to Wakefield Road

Report generation date: 08/01/2018 09:15:31

« (Default Analysis Set) - 2023 Predicted, Saturday

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - 2023 Predicted				
Stream B-A-C	0.16	7.32	0.14	A
Stream C-A	-	-	-	-
Stream C-B	0.00	0.00	0.00	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2017 Existing, AM" model duration: 07:30 - 09:00

"D2 - 2017 Existing, PM" model duration: 16:30 - 18:00

"D3 - 2017 Existing, Saturday" model duration: 16:30 - 18:00

"D4 - 2023 Base, AM" model duration: 07:30 - 09:00

"D5 - 2023 Base, PM" model duration: 16:30 - 18:00

"D6 - 2023 Base, Saturday" model duration: 16:30 - 18:00

"D7 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D8 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D9 - 2023 Predicted, Saturday" model duration: 16:30 - 18:00

"D10 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D11 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D12 - 2023 Predicted with Lidl, Saturday" model duration: 16:30 - 18:00

Run using Junctions 8.0.5.523 at 08/01/2018 09:15:31

File summary

Title	Left Turn from Rotherham Road to Wakefield Road Southbound
Location	Mapplewell, Barnsley
Site Number	
Date	29/11/2017
Version	
Status	(new file)
Identifier	
Client	Netherton Building and Construction
Jobnumber	14-114
Enumerator	johnturner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - 2023 Predicted, Saturday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, Saturday	2023 Predicted	Saturday		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	7.32	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
A61 North	A	A61 North		Major
Rotherham Road Left Turn	B	Rotherham Road Left Turn		Minor
A61 South	C	A61 South		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A61 South	8.00		0.00		2.20	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

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Rotherham Road Left Turn	One lane	5.00										0	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	582.214	0.097	0.245	0.154	0.350
1	B-C	760.204	0.106	0.269	-	-
1	C-B	573.963	0.203	0.203	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A61 North	ONE HOUR	✓	647.00	100.000
Rotherham Road Left Turn	ONE HOUR	✓	70.00	100.000
A61 South	ONE HOUR	✓	678.00	100.000

Turning Proportions

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

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.000	0.000	647.000
	Rotherham Road Left Turn	0.000	0.000	70.000
	A61 South	678.000	0.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.00	0.00	1.00
	Rotherham Road Left Turn	0.00	0.00	1.00
	A61 South	1.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	1.000	1.000	1.000
	Rotherham Road Left Turn	1.000	1.000	1.000
	A61 South	1.000	1.000	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

	To			
		A61 North	Rotherham Road Left Turn	A61 South
From	A61 North	0.0	0.0	0.0
	Rotherham Road Left Turn	0.0	0.0	0.0
	A61 South	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.14	7.32	0.16	A
C-A	-	-	-	-
C-B	0.00	0.00	0.00	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	52.70	52.34	0.00	629.22	0.084	0.09	6.236	A
C-A	510.43	510.43	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	475.07	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	487.10	487.10	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	62.93	62.83	0.00	603.79	0.104	0.12	6.655	A
C-A	609.51	609.51	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	455.87	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	581.64	581.64	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	77.07	76.91	0.00	568.64	0.136	0.16	7.319	A
C-A	746.49	746.49	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	429.33	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	712.36	712.36	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	77.07	77.07	0.00	568.64	0.136	0.16	7.322	A
C-A	746.49	746.49	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	429.33	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	712.36	712.36	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	62.93	63.08	0.00	603.79	0.104	0.12	6.661	A
C-A	609.51	609.51	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	455.87	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	581.64	581.64	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	52.70	52.80	0.00	629.22	0.084	0.09	6.248	A
C-A	510.43	510.43	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	475.07	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	487.10	487.10	0.00	-	-	-	-	-

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Site Access-Wakefield Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Site Access - Wakefield Road

Report generation date: 08/01/2018 09:42:22

« (Default Analysis Set) - 2023 Predicted, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - 2023 Predicted				
Stream B-AC	0.11	11.44	0.10	B
Stream C-A	-	-	-	-
Stream C-B	0.02	7.06	0.02	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2023 Predicted, AM " model duration: 07:30 - 09:00

"D2 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D3 - 2023 Predicted, Saturday" model duration: 11:30 - 13:00

"D4 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D5 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D6 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 09:42:21

File summary

Title	Site Access junction with Wakefield Road
Location	Wakefield Road, Mapplewell
Site Number	
Date	05/12/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	14-114
Enumerator	johnturner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - 2023 Predicted, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, AM	2023 Predicted	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	10.54	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road North	A	Wakefield Road North		Major
Site Access	B	Site Access		Minor
Wakefield Road South	C	Wakefield Road South		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road South	6.00		0.00	✓	3.00	100.00		

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Site Access	One lane	2.75										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	505.529	0.092	0.233	0.146	0.332
1	B-C	639.009	0.098	0.248	-	-
1	C-B	686.890	0.266	0.266	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road North	ONE HOUR	✓	575.00	100.000
Site Access	ONE HOUR	✓	31.00	100.000
Wakefield Road South	ONE HOUR	✓	779.00	100.000

Turning Proportions

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

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.000	5.000	570.000
	Site Access	11.000	0.000	20.000
	Wakefield Road South	771.000	8.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.00	0.01	0.99
	Site Access	0.35	0.00	0.65
	Wakefield Road South	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	1.000	1.000	1.000
	Site Access	1.000	1.000	1.000
	Wakefield Road South	1.000	1.000	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.0	0.0	0.0
	Site Access	0.0	0.0	0.0
	Wakefield Road South	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.10	11.44	0.11	B
C-A	-	-	-	-
C-B	0.02	7.06	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	23.34	23.11	0.00	429.83	0.054	0.06	8.847	A
C-A	580.45	580.45	0.00	-	-	-	-	-
C-B	6.02	5.98	0.00	571.68	0.011	0.01	6.363	A
A-B	3.76	3.76	0.00	-	-	-	-	-
A-C	429.13	429.13	0.00	-	-	-	-	-

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	27.87	27.80	0.00	396.95	0.070	0.07	9.748	A
C-A	693.11	693.11	0.00	-	-	-	-	-
C-B	7.19	7.18	0.00	549.32	0.013	0.01	6.639	A
A-B	4.49	4.49	0.00	-	-	-	-	-
A-C	512.42	512.42	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	34.13	34.00	0.00	348.83	0.098	0.11	11.430	B
C-A	848.89	848.89	0.00	-	-	-	-	-
C-B	8.81	8.79	0.00	518.40	0.017	0.02	7.063	A
A-B	5.51	5.51	0.00	-	-	-	-	-
A-C	627.58	627.58	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	34.13	34.13	0.00	348.82	0.098	0.11	11.439	B
C-A	848.89	848.89	0.00	-	-	-	-	-
C-B	8.81	8.81	0.00	518.40	0.017	0.02	7.063	A
A-B	5.51	5.51	0.00	-	-	-	-	-
A-C	627.58	627.58	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	27.87	27.99	0.00	396.94	0.070	0.08	9.762	A
C-A	693.11	693.11	0.00	-	-	-	-	-
C-B	7.19	7.21	0.00	549.32	0.013	0.01	6.642	A
A-B	4.49	4.49	0.00	-	-	-	-	-
A-C	512.42	512.42	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	23.34	23.41	0.00	429.81	0.054	0.06	8.861	A
C-A	580.45	580.45	0.00	-	-	-	-	-
C-B	6.02	6.03	0.00	571.68	0.011	0.01	6.366	A
A-B	3.76	3.76	0.00	-	-	-	-	-
A-C	429.13	429.13	0.00	-	-	-	-	-

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Site Access-Wakefield Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Site Access - Wakefield Road

Report generation date: 08/01/2018 09:42:57

« (Default Analysis Set) - 2023 Predicted, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
A1 - 2023 Predicted				
Stream B-AC	0.05	11.26	0.05	B
Stream C-A	-	-	-	-
Stream C-B	0.04	7.73	0.04	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D2 - 2023 Predicted, PM " model duration: 16:30 - 18:00

"D3 - 2023 Predicted, Saturday" model duration: 11:30 - 13:00

"D4 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D5 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D6 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 09:42:57

File summary

Title	Site Access junction with Wakefield Road
Location	Wakefield Road, Mapplewell
Site Number	
Date	05/12/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	14-114
Enumerator	johnturner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - 2023 Predicted, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, PM	2023 Predicted	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	9.23	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road North	A	Wakefield Road North		Major
Site Access	B	Site Access		Minor
Wakefield Road South	C	Wakefield Road South		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road South	6.00		0.00	✓	3.00	100.00		

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Site Access	One lane	2.75										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	505.529	0.092	0.233	0.146	0.332
1	B-C	639.009	0.098	0.248	-	-
1	C-B	686.890	0.266	0.266	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road North	ONE HOUR	✓	683.00	100.000
Site Access	ONE HOUR	✓	14.00	100.000
Wakefield Road South	ONE HOUR	✓	626.00	100.000

Turning Proportions

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

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.000	11.000	672.000
	Site Access	5.000	0.000	9.000
	Wakefield Road South	607.000	19.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.00	0.02	0.98
	Site Access	0.36	0.00	0.64
	Wakefield Road South	0.97	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	1.000	1.000	1.000
	Site Access	1.000	1.000	1.000
	Wakefield Road South	1.000	1.000	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.0	0.0	0.0
	Site Access	0.0	0.0	0.0
	Wakefield Road South	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.05	11.26	0.05	B
C-A	-	-	-	-
C-B	0.04	7.73	0.04	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	10.54	10.44	0.00	419.15	0.025	0.03	8.806	A
C-A	456.98	456.98	0.00	-	-	-	-	-
C-B	14.30	14.20	0.00	550.04	0.026	0.03	6.716	A
A-B	8.28	8.28	0.00	-	-	-	-	-
A-C	505.92	505.92	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	12.59	12.55	0.00	384.79	0.033	0.03	9.671	A
C-A	545.68	545.68	0.00	-	-	-	-	-
C-B	17.08	17.05	0.00	523.48	0.033	0.03	7.108	A
A-B	9.89	9.89	0.00	-	-	-	-	-
A-C	604.11	604.11	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	15.41	15.36	0.00	335.03	0.046	0.05	11.260	B
C-A	668.32	668.32	0.00	-	-	-	-	-
C-B	20.92	20.88	0.00	486.76	0.043	0.04	7.727	A
A-B	12.11	12.11	0.00	-	-	-	-	-
A-C	739.89	739.89	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	15.41	15.41	0.00	335.02	0.046	0.05	11.263	B
C-A	668.32	668.32	0.00	-	-	-	-	-
C-B	20.92	20.92	0.00	486.76	0.043	0.04	7.727	A
A-B	12.11	12.11	0.00	-	-	-	-	-
A-C	739.89	739.89	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	12.59	12.64	0.00	384.77	0.033	0.03	9.675	A
C-A	545.68	545.68	0.00	-	-	-	-	-
C-B	17.08	17.12	0.00	523.48	0.033	0.03	7.112	A
A-B	9.89	9.89	0.00	-	-	-	-	-
A-C	604.11	604.11	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	10.54	10.57	0.00	419.12	0.025	0.03	8.812	A
C-A	456.98	456.98	0.00	-	-	-	-	-
C-B	14.30	14.33	0.00	550.04	0.026	0.03	6.719	A
A-B	8.28	8.28	0.00	-	-	-	-	-
A-C	505.92	505.92	0.00	-	-	-	-	-

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Filename: Site Access-Wakefield Road.arc8

Path: Y:\2014\14-101 to 14-125\14-114 Former William Freeman Works, Mapplewell\Technical\2017 Transport Assessment\Junction Modelling\Junctions 8\Site Access - Wakefield Road

Report generation date: 08/01/2018 09:43:19

« (Default Analysis Set) - 2023 Predicted, Saturday

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - 2023 Predicted			
Stream B-AC	0.10	10.81	0.09	B
Stream C-A	-	-	-	-
Stream C-B	0.02	7.08	0.02	A
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-

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

"D1 - 2023 Predicted, AM" model duration: 07:30 - 09:00

"D2 - 2023 Predicted, PM" model duration: 16:30 - 18:00

"D3 - 2023 Predicted, Saturday " model duration: 11:30 - 13:00

"D4 - 2023 Predicted with Lidl, AM" model duration: 07:30 - 09:00

"D5 - 2023 Predicted with Lidl, PM" model duration: 16:30 - 18:00

"D6 - 2023 Predicted with Lidl, Saturday" model duration: 11:30 - 13:00

Run using Junctions 8.0.5.523 at 08/01/2018 09:43:19

File summary

Title	Site Access junction with Wakefield Road
Location	Wakefield Road, Mapplewell
Site Number	
Date	05/12/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	14-114
Enumerator	johnturner
Description	

Analysis Options

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

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - 2023 Predicted, Saturday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2023 Predicted, Saturday	2023 Predicted	Saturday		ONE HOUR	11:30	13:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	10.05	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Arm	Name	Description	Arm Type
Wakefield Road North	A	Wakefield Road North		Major
Site Access	B	Site Access		Minor
Wakefield Road South	C	Wakefield Road South		Major

Major Arm Geometry

Name	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
Wakefield Road South	6.00		0.00	✓	3.00	100.00		

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

Minor Arm Geometry

Name	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
Site Access	One lane	2.75										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	505.529	0.092	0.233	0.146	0.332
1	B-C	639.009	0.098	0.248	-	-
1	C-B	686.890	0.266	0.266	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Wakefield Road North	ONE HOUR	✓	580.00	100.000
Site Access	ONE HOUR	✓	31.00	100.000
Wakefield Road South	ONE HOUR	✓	620.00	100.000

Turning Proportions

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

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.000	5.000	575.000
	Site Access	11.000	0.000	20.000
	Wakefield Road South	612.000	8.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.00	0.01	0.99
	Site Access	0.35	0.00	0.65
	Wakefield Road South	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	1.000	1.000	1.000
	Site Access	1.000	1.000	1.000
	Wakefield Road South	1.000	1.000	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

	To			
		Wakefield Road North	Site Access	Wakefield Road South
From	Wakefield Road North	0.0	0.0	0.0
	Site Access	0.0	0.0	0.0
	Wakefield Road South	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.09	10.81	0.10	B
C-A	-	-	-	-
C-B	0.02	7.08	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (11:30-11:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	23.34	23.12	0.00	439.90	0.053	0.06	8.633	A
C-A	460.75	460.75	0.00	-	-	-	-	-
C-B	6.02	5.98	0.00	570.68	0.011	0.01	6.374	A
A-B	3.76	3.76	0.00	-	-	-	-	-
A-C	432.89	432.89	0.00	-	-	-	-	-

Main results: (11:45-12:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	27.87	27.80	0.00	409.99	0.068	0.07	9.418	A
C-A	550.18	550.18	0.00	-	-	-	-	-
C-B	7.19	7.18	0.00	548.12	0.013	0.01	6.654	A
A-B	4.49	4.49	0.00	-	-	-	-	-
A-C	516.91	516.91	0.00	-	-	-	-	-

Main results: (12:00-12:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	34.13	34.02	0.00	366.98	0.093	0.10	10.808	B
C-A	673.82	673.82	0.00	-	-	-	-	-
C-B	8.81	8.79	0.00	516.94	0.017	0.02	7.083	A
A-B	5.51	5.51	0.00	-	-	-	-	-
A-C	633.09	633.09	0.00	-	-	-	-	-

Main results: (12:15-12:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	34.13	34.13	0.00	366.98	0.093	0.10	10.815	B
C-A	673.82	673.82	0.00	-	-	-	-	-
C-B	8.81	8.81	0.00	516.94	0.017	0.02	7.083	A
A-B	5.51	5.51	0.00	-	-	-	-	-
A-C	633.09	633.09	0.00	-	-	-	-	-

Main results: (12:30-12:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	27.87	27.98	0.00	409.98	0.068	0.07	9.428	A
C-A	550.18	550.18	0.00	-	-	-	-	-
C-B	7.19	7.21	0.00	548.12	0.013	0.01	6.657	A
A-B	4.49	4.49	0.00	-	-	-	-	-
A-C	516.91	516.91	0.00	-	-	-	-	-

Main results: (12:45-13:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	23.34	23.41	0.00	439.89	0.053	0.06	8.646	A
C-A	460.75	460.75	0.00	-	-	-	-	-
C-B	6.02	6.03	0.00	570.68	0.011	0.01	6.375	A
A-B	3.76	3.76	0.00	-	-	-	-	-
A-C	432.89	432.89	0.00	-	-	-	-	-