Appendix W – Junction 15: Site Access 4

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Site Access 4 Chidswell Lane Site Access jct_RevB_ Feb 2020.j9
Path: P:\133--\A13398-VAA Land at Chidswell\30 Technical\31 Modelling\2019\Site Related\Junctions9
Report generation date: 02/03/2020 14:15:13

»2030 DS(A+B), AM
»2030 DS(A+B), PM

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	2030 DS(A+B)									
Stream B-C	0.4	18.24	0.27	C	-3 %	0.1	7.73	0.08	A	39 %
Stream B-A	2.9	39.80	0.74	E		0.6	16.29	0.38	C	
Stream C-AB	0.1	7.70	0.04	A	[Stream B-A]	0.1	7.86	0.12	A	[Stream B-A]

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

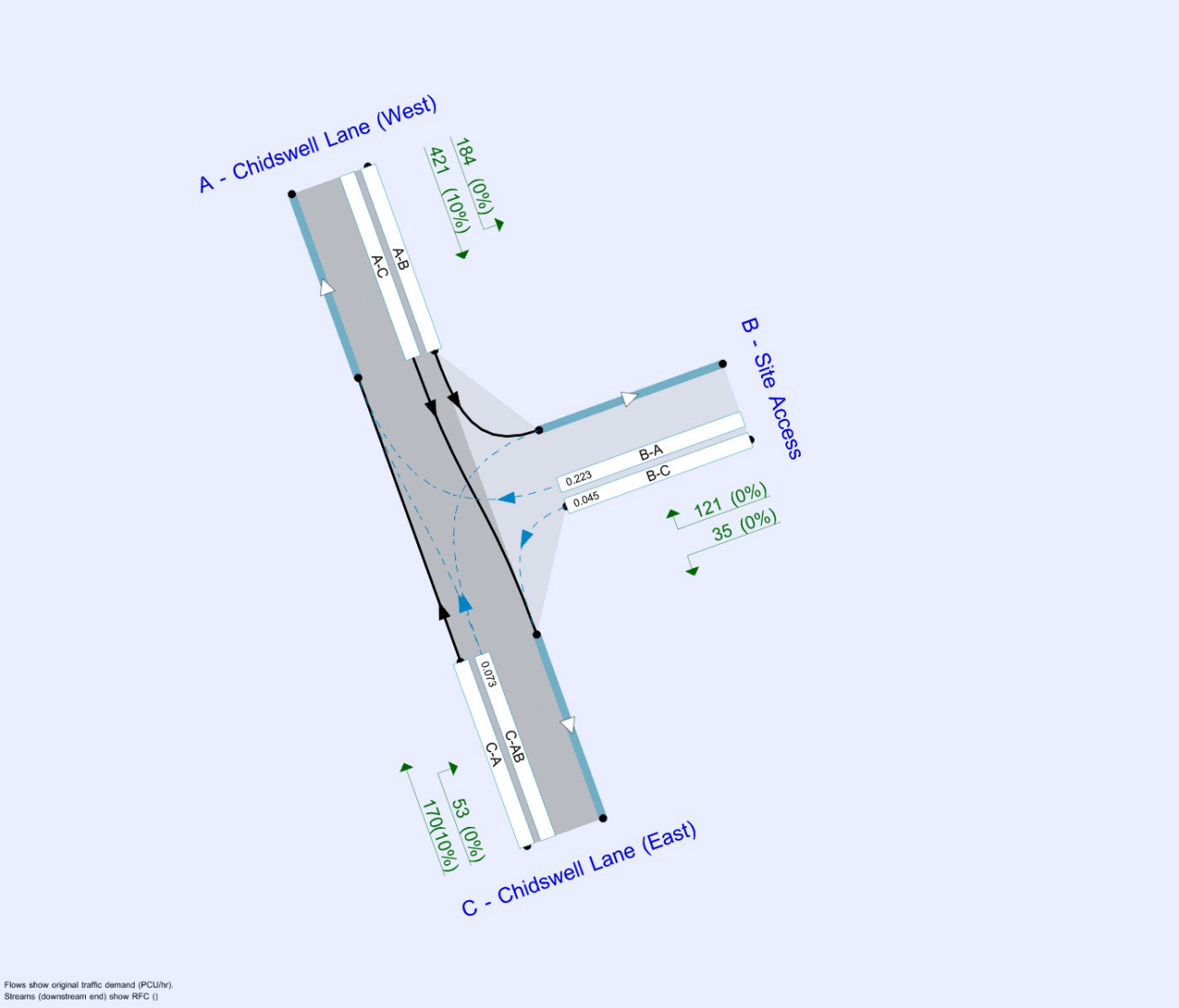
File summary

File Description

Title	Chidswell Site Access
Location	Chidswell, Dewsbury
Site number	
Date	30/06/2016
Version	
Status	Completed
Identifier	
Client	Church Commissioners
Jobnumber	A079758
Enumerator	tim.delaat [1368DT]
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2030 DS(A+B)	AM	ONE HOUR	07:15	08:45	15	✓
D14	2030 DS(A+B)	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

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

2030 DS(A+B), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		11.50	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-3	Stream B-A

Arms

Arms

Arm	Name	Description	Arm type
A	Chidswell Lane (West)		Major
B	Site Access		Minor
C	Chidswell Lane (East)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Chidswell Lane (East)	7.27			148.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane plus flare	9.37	3.87	2.74	2.74	2.73	✓	1.00	33	32

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	525	0.090	0.228	0.144	0.326
1	B-C	732	0.106	0.268	-	-
1	C-B	660	0.241	0.241	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2030 DS(A+B)	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chidswell Lane (West)		ONE HOUR	✓	497	100.000
B - Site Access		ONE HOUR	✓	321	100.000
C - Chidswell Lane (East)		ONE HOUR	✓	173	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Chidswell Lane (West)	B - Site Access	C - Chidswell Lane (East)
From	A - Chidswell Lane (West)	0	72	425
	B - Site Access	249	0	72
	C - Chidswell Lane (East)	152	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Chidswell Lane (West)	B - Site Access	C - Chidswell Lane (East)
From	A - Chidswell Lane (West)	0	10	10
	B - Site Access	10	0	10
	C - Chidswell Lane (East)	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.27	18.24	0.4	C	66	99
B-A	0.74	39.80	2.9	E	228	343
C-AB	0.04	7.70	0.1	A	19	29
C-A					139	209
A-B					66	99
A-C					390	585

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	14	523	0.104	54	0.0	0.1	8.432	A
B-A	187	47	424	0.442	184	0.0	0.8	16.310	C
C-AB	16	4	574	0.027	16	0.0	0.0	7.091	A
C-A	114	29			114				
A-B	54	13			54				
A-C	320	80			320				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	16	447	0.145	64	0.1	0.2	10.349	B
B-A	224	56	403	0.556	222	0.8	1.3	21.689	C
C-AB	19	5	558	0.034	19	0.0	0.0	7.340	A
C-A	136	34			136				
A-B	64	16			64				
A-C	382	96			382				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	20	308	0.257	79	0.2	0.4	17.190	C
B-A	274	69	372	0.738	269	1.3	2.7	36.551	E
C-AB	23	6	537	0.043	23	0.0	0.0	7.702	A
C-A	167	42			167				
A-B	79	20			79				
A-C	468	117			468				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	20	296	0.268	79	0.4	0.4	18.242	C
B-A	274	69	371	0.739	273	2.7	2.9	39.804	E
C-AB	23	6	537	0.043	23	0.0	0.1	7.703	A
C-A	167	42			167				
A-B	79	20			79				
A-C	468	117			468				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	16	435	0.149	66	0.4	0.2	10.748	B
B-A	224	56	402	0.556	230	2.9	1.5	23.611	C
C-AB	19	5	558	0.034	19	0.1	0.0	7.342	A
C-A	136	34			136				
A-B	64	16			64				
A-C	382	96			382				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	14	516	0.105	54	0.2	0.1	8.577	A
B-A	187	47	424	0.443	190	1.5	0.9	17.089	C
C-AB	16	4	574	0.027	16	0.0	0.0	7.095	A
C-A	114	29			114				
A-B	54	13			54				
A-C	320	80			320				

2030 DS(A+B), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.71	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	39	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2030 DS(A+B)	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chidswell Lane (West)		ONE HOUR	✓	605	100.000
B - Site Access		ONE HOUR	✓	156	100.000
C - Chidswell Lane (East)		ONE HOUR	✓	223	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Chidswell Lane (West)	B - Site Access	C - Chidswell Lane (East)
From	A - Chidswell Lane (West)	0	184	421
	B - Site Access	121	0	35
	C - Chidswell Lane (East)	170	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Chidswell Lane (West)	B - Site Access	C - Chidswell Lane (East)
From	A - Chidswell Lane (West)	0	0	10
	B - Site Access	0	0	0
	C - Chidswell Lane (East)	10	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.08	7.73	0.1	A	32	48
B-A	0.38	16.29	0.6	C	111	167
C-AB	0.12	7.86	0.1	A	50	75
C-A					155	232
A-B					169	253
A-C					386	579

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	591	0.045	26	0.0	0.0	6.367	A
B-A	91	23	409	0.223	90	0.0	0.3	11.261	B
C-AB	41	10	559	0.073	40	0.0	0.1	6.945	A
C-A	127	32			127				
A-B	139	35			139				
A-C	317	79			317				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	558	0.056	31	0.0	0.1	6.838	A
B-A	109	27	386	0.282	108	0.3	0.4	12.958	B
C-AB	49	12	542	0.090	49	0.1	0.1	7.314	A
C-A	152	38			152				
A-B	165	41			165				
A-C	378	95			378				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	505	0.076	38	0.1	0.1	7.716	A
B-A	133	33	354	0.376	132	0.4	0.6	16.173	C
C-AB	61	15	520	0.117	61	0.1	0.1	7.856	A
C-A	185	46			185				
A-B	203	51			203				
A-C	464	116			464				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	504	0.076	39	0.1	0.1	7.733	A
B-A	133	33	354	0.376	133	0.6	0.6	16.288	C
C-AB	61	15	521	0.117	61	0.1	0.1	7.861	A
C-A	185	46			185				
A-B	203	51			203				
A-C	464	116			464				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	557	0.057	32	0.1	0.1	6.852	A
B-A	109	27	386	0.282	110	0.6	0.4	13.076	B
C-AB	49	12	543	0.090	49	0.1	0.1	7.319	A
C-A	152	38			152				
A-B	165	41			165				
A-C	378	95			378				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	590	0.045	26	0.1	0.0	6.382	A
B-A	91	23	408	0.223	92	0.4	0.3	11.377	B
C-AB	41	10	559	0.073	41	0.1	0.1	6.959	A
C-A	127	32			127				
A-B	139	35			139				
A-C	317	79			317				