

S|C|P

APPENDIX M

Junctions 9				
PICADY 9 - Priority Intersection Module				
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Filename: 13. B5099 Bersham Road Site Access (W).j9

Path: Z:\Job Library\2021\210187 - Ruthin Road, Wrexham\Traffic Data\PICADY - Jan 2024 Update

Report generation date: 06/02/2024 09:53:07

»2028 Assessment Re-dist, AM

»2028 Assessment Re-dist, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2028 Assessment Re-dist										
Stream B-C	D1	0.1	7.24	0.05	A	D2	0.0	6.35	0.02	A
Stream B-A		0.3	10.81	0.19	B		0.2	9.39	0.13	A
Stream C-AB		0.1	6.77	0.05	A		0.1	5.84	0.04	A

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

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

File summary

File Description

Title	Junction 13 B5099 Bersham Road Site Access
Location	
Site number	
Date	01/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCPlabbie.moore
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2028 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	15
D2	2028 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Assessment Re-dist, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - 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	Junction 13 B5099 Bersham Road Site Access	T-Junction	Two-way		2.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B5099 Bersham Road (W)		Major
B	Site Access (N)		Minor
C	B5099 Bersham Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.70			100.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	8.60	3.50	3.40	3.40	3.40	✓	1.00	21	16

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	529	0.085	0.215	0.135	0.307
B-C	672	0.091	0.230	-	-
C-B	632	0.216	0.216	-	-

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)
D1	2028 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	15

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 (%)
A		✓	307	100.000
B		✓	107	100.000
C		✓	96	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	114	193
	B	79	0	28
	C	73	23	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	7.24	0.1	A
B-A	0.19	10.81	0.3	B
C-AB	0.05	6.77	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	610	0.035	21	0.0	6.721	A
B-A	59	477	0.125	59	0.2	9.448	A
C-AB	19	619	0.031	19	0.0	6.595	A
C-A	53			53			
A-B	86			86			
A-C	145			145			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	597	0.042	25	0.0	6.927	A
B-A	71	467	0.152	71	0.2	9.983	A
C-AB	23	617	0.038	23	0.1	6.667	A
C-A	63			63			
A-B	102			102			
A-C	174			174			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	578	0.053	31	0.1	7.237	A
B-A	87	453	0.192	87	0.3	10.790	B
C-AB	29	614	0.047	29	0.1	6.767	A
C-A	77			77			
A-B	126			126			
A-C	212			212			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	578	0.053	31	0.1	7.239	A
B-A	87	453	0.192	87	0.3	10.805	B
C-AB	29	614	0.047	29	0.1	6.770	A
C-A	77			77			
A-B	126			126			
A-C	212			212			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	597	0.042	25	0.0	6.930	A
B-A	71	467	0.152	71	0.2	10.005	B
C-AB	23	617	0.038	23	0.1	6.669	A
C-A	63			63			
A-B	102			102			
A-C	174			174			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	610	0.035	21	0.0	6.728	A
B-A	59	477	0.125	60	0.2	9.483	A
C-AB	19	619	0.031	19	0.0	6.599	A
C-A	53			53			
A-B	86			86			
A-C	145			145			

2028 Assessment Re-dist, PM

Data Errors and Warnings

Severity	Area	Item	Description
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Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 13 B5099 Bersham Road Site Access	T-Junction	Two-way		2.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2028 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	15

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 (%)
A		✓	92	100.000
B		✓	69	100.000
C		✓	181	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	67	25
	B	58	0	11
	C	161	20	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	6.35	0.0	A
B-A	0.13	9.39	0.2	A
C-AB	0.04	5.84	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	648	0.013	8	0.0	6.187	A
B-A	44	499	0.087	43	0.1	8.673	A
C-AB	18	697	0.026	18	0.0	5.837	A
C-A	118			118			
A-B	50			50			
A-C	19			19			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	643	0.015	10	0.0	6.254	A
B-A	52	494	0.106	52	0.1	8.964	A
C-AB	23	709	0.032	23	0.0	5.765	A
C-A	140			140			
A-B	60			60			
A-C	22			22			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	636	0.019	12	0.0	6.350	A
B-A	64	486	0.131	64	0.2	9.379	A
C-AB	29	727	0.040	29	0.1	5.674	A
C-A	170			170			
A-B	74			74			
A-C	28			28			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	636	0.019	12	0.0	6.351	A
B-A	64	486	0.131	64	0.2	9.385	A
C-AB	29	727	0.040	29	0.1	5.673	A
C-A	170			170			
A-B	74			74			
A-C	28			28			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	643	0.015	10	0.0	6.255	A
B-A	52	494	0.106	52	0.1	8.976	A
C-AB	23	709	0.032	23	0.0	5.769	A
C-A	140			140			
A-B	60			60			
A-C	22			22			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	648	0.013	8	0.0	6.189	A
B-A	44	499	0.087	44	0.1	8.693	A
C-AB	18	697	0.026	18	0.0	5.840	A
C-A	118			118			
A-B	50			50			
A-C	19			19			