

Appendix F *PICADY Assessments*

Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: Site Access - A41 PICADY Model (As Built)_Updated Methodology_Aug 24 Submission.j9
Path: P:\Transportation\22281-TMBI Symmetry Park, Bicester, Phase 3\01_WIP\CA_Calculation\Junctions 9
Report generation date: 28/08/2024 10:23:17

- »2029 Base + Committed, AM
- »2029 Base + Committed, PM
- »2029 Base + Committed + DEV Units 6 & 7, AM
- »2029 Base + Committed + DEV Units 6 & 7, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2029 Base + Committed						
Stream B-C	0.1	12.27	0.09	0.1	10.09	0.11
Stream B-A	1.5	96.12	0.58	1.0	50.23	0.49
Stream C-AB	0.1	9.22	0.08	0.1	9.36	0.06
2029 Base + Committed + DEV Units 6 & 7						
Stream B-C	0.2	18.83	0.13	0.1	11.32	0.12
Stream B-A	2.5	132.81	0.74	1.4	61.02	0.59
Stream C-AB	0.1	9.21	0.08	0.1	9.25	0.06

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	(untitled)
Location	
Site number	
Date	19/06/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	HYDROCK\ChrisRushton
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	2029 Base + Committed	AM	ONE HOUR	07:15	08:45	15
D2	2029 Base + Committed	PM	ONE HOUR	16:00	17:30	15
D3	2029 Base + Committed + DEV Units 6 & 7	AM	ONE HOUR	07:15	08:45	15
D4	2029 Base + Committed + DEV Units 6 & 7	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2029 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access / A41	T-Junction	Two-way		2.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A41 West		Major
B	Site Access		Minor
C	A41 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A41 East	6.62		✓	3.50	250.0	✓	9.00

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	10.00	10.00	6.93	4.73	4.00	✓	3.00	250	250

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	797	0.141	0.357	0.225	0.510
1	B-C	819	0.122	0.309	-	-
1	C-B	820	0.309	0.309	-	-

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	2029 Base + Committed	AM	ONE HOUR	07:15	08:45	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 - A41 West		✓	1076	100.000
B - Site Access		✓	83	100.000
C - A41 East		✓	1111	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A41 West	B - Site Access	C - A41 East
A - A41 West	0	62	1014
B - Site Access	55	0	28
C - A41 East	1078	33	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A41 West	B - Site Access	C - A41 East
A - A41 West	0	8	7
B - Site Access	20	0	9
C - A41 East	10	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.09	12.27	0.1	B
B-A	0.58	96.12	1.5	F
C-AB	0.08	9.22	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	559	0.038	21	0.0	7.289	A
B-A	41	323	0.128	41	0.2	15.275	C
C-AB	25	570	0.044	25	0.0	7.063	A
C-A	812			812			
A-B	47			47			
A-C	763			763			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	501	0.050	25	0.1	8.236	A
B-A	49	231	0.214	49	0.3	23.663	C
C-AB	30	521	0.057	30	0.1	7.834	A
C-A	969			969			
A-B	56			56			
A-C	912			912			

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	31	366	0.084	31	0.1	11.678	B
B-A	61	104	0.585	56	1.4	85.437	F
C-AB	36	454	0.080	36	0.1	9.218	A
C-A	1187			1187			
A-B	68			68			
A-C	1116			1116			

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	31	350	0.088	31	0.1	12.274	B
B-A	61	104	0.583	60	1.5	96.115	F
C-AB	36	454	0.080	36	0.1	9.222	A
C-A	1187			1187			
A-B	68			68			
A-C	1116			1116			

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	25	496	0.051	25	0.1	8.346	A
B-A	49	232	0.213	54	0.3	24.863	C
C-AB	30	521	0.057	30	0.1	7.839	A
C-A	969			969			
A-B	56			56			
A-C	912			912			

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	21	558	0.038	21	0.0	7.314	A
B-A	41	323	0.128	42	0.2	15.401	C
C-AB	25	570	0.044	25	0.0	7.068	A
C-A	812			812			
A-B	47			47			
A-C	763			763			

2029 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access / A41	T-Junction	Two-way		1.88	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	2029 Base + Committed	PM	ONE HOUR	16:00	17:30	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 - A41 West		✓	1022	100.000
B - Site Access		✓	108	100.000
C - A41 East		✓	1005	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A41 West	B - Site Access	C - A41 East
From	A - A41 West	0	57	965
	B - Site Access	67	0	41
	C - A41 East	981	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A41 West	B - Site Access	C - A41 East
From	A - A41 West	0	11	4
	B - Site Access	9	0	3
	C - A41 East	4	16	0