XLINKS' MOROCCO-UK POWER PROJECT

Environmental Statement

Volume 2, Appendix 5.5: Junctions 10 Modelling Output

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For Issue

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Prepared by:

RPS

Prepared for:

Xlinks 1 Limited

Contents

1 JUNCTIONS 10 MODELLING OUTPUT

1.1 Introduction

1.1.1 This document forms Volume 2, Appendix 5.5: Junctions 10 Modelling Output of the Environmental Statement (ES) prepared for the United Kingdom (UK) elements of Xlinks' Morocco-UK Power Project (the 'Project'). For ease of reference, the UK elements of the Project are referred to as the 'Proposed Development', which is the focus of the ES. The ES presents the findings of the Environmental Impact Assessment (EIA) process for the Proposed Development.

1.1.2 This document provides the results of Priority Intersection Capacity and Delay (PICADY) modelling to consider the current operation of the Barnstaple Street / Manteo Way T-junction in the observed AM peak hour (8 am to 9 am) and observed PM peak hour (3:45 pm to 4:45 pm) in 2024 and the impact of the Proposed Development and cumulative development traffic on the operation of the Barnstaple Street / Manteo Way T-junction in the observed AM peak hour (8 am to 9 am) and observed PM peak hour (3:45 pm to 4:45 pm) in the 2028 future baseline scenario.

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.3.1598

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: Barnstaple Street_Manteo Way Priority Junction_AdvMode V2.j10
Report generation date: 26/09/2024 16:32:34

Summary of junction performance

	AM								PM							
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
	2024 Base															
Stream B-C	D1	1.7	8.8	35.68	0.65	E	18.23	C	D2	1.5	6.8	41.62	0.62	E	16.84	C
Stream B-A		4.8	25.3	64.91	0.86	F				5.2	26.2	75.22	0.87	F		
Stream C-B		0.3	1.5	9.12	0.25	A				0.7	3.1	13.13	0.42	B		
	2028 Base															
Stream B-C	D3	4.2	17.4	85.50	0.87	F	29.08	D	D4	5.3	16.6	132.44	0.96	F	29.46	D
Stream B-A		6.8	31.7	88.84	0.92	F				7.8	33.1	108.35	0.94	F		
Stream C-B		0.4	1.2	9.33	0.26	A				0.8	3.3	13.86	0.44	B		
	2028 FY + Construction															
Stream B-C	D5	4.9	18.6	96.71	0.91	F	30.61	D	D6	7.1	24.6	186.08	1.01	F	41.14	E
Stream B-A		7.1	32.4	91.44	0.92	F				11.4	38.4	148.05	1.00	F		
Stream C-B		0.4	1.2	9.44	0.26	A				0.8	3.3	13.86	0.44	B		
	2028 FY + Construction + CME Dev															
Stream B-C	D7	5.2	19.2	102.95	0.92	F	31.50	D								
Stream B-A		7.2	32.7	92.98	0.92	F										
Stream C-B		0.4	1.3	9.49	0.26	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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

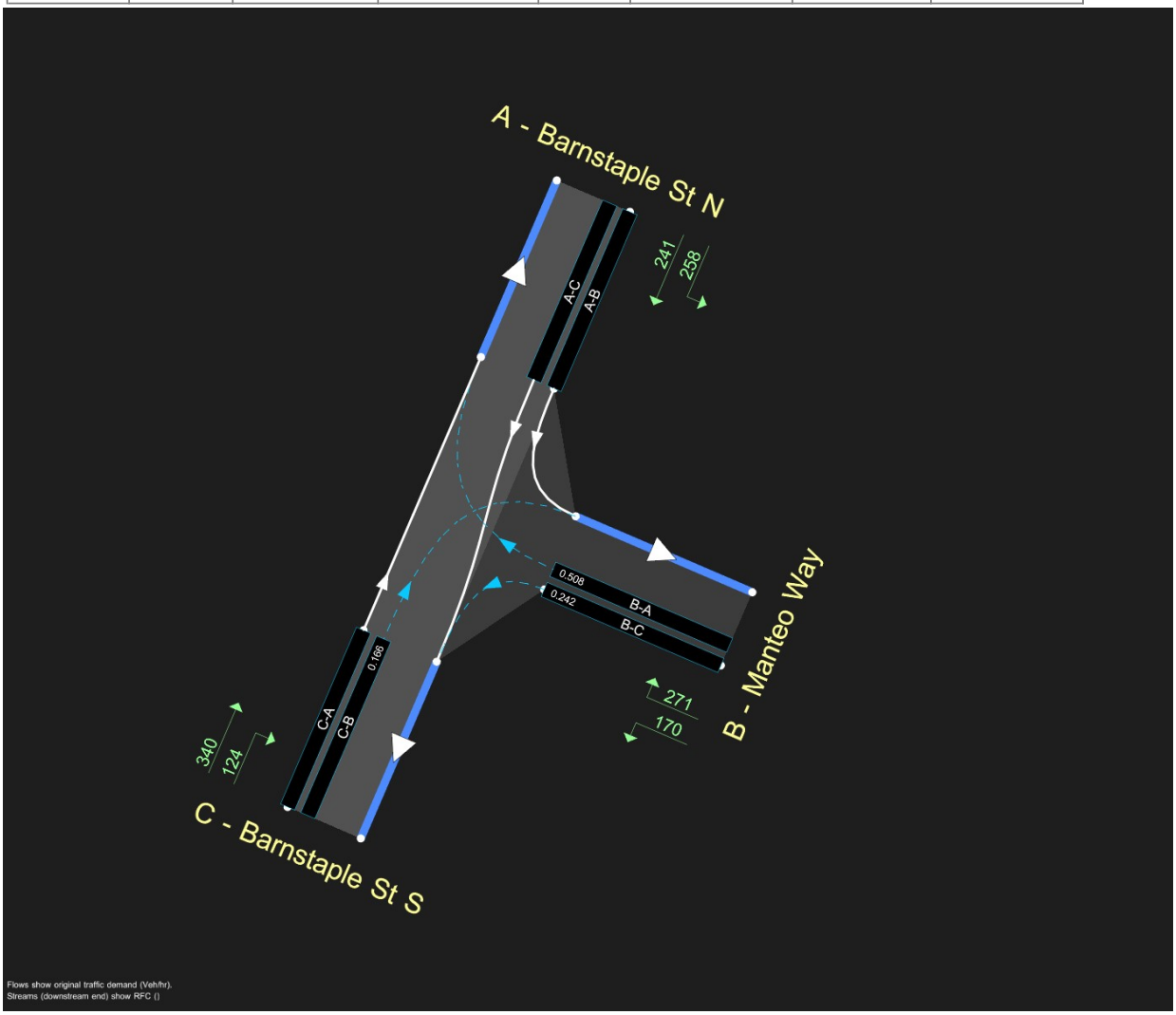
File Description

Title	
Location	
Site number	
Date	23/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	TT\BEN.MEADOR
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	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

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	2024 Base	AM	ONE HOUR	07:45	09:15	15
D2	2024 Base	PM	ONE HOUR	15:30	17:00	15
D3	2028 Base	AM	ONE HOUR	07:45	09:15	15
D4	2028 Base	PM	ONE HOUR	15:30	17:00	15
D5	2028 FY + Construction	AM	ONE HOUR	07:45	09:15	15
D6	2028 FY + Construction	PM	ONE HOUR	15:30	17:00	15
D7	2028 FY + Construction + CME Dev	AM	ONE HOUR	07:45	09:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Manteo Way - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Barnstaple Street / Manteo Way	T-Junction	Two-way	Two-way	Two-way		18.23	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	18.23	C

Arms

Arms

Arm	Name	Description	Arm type
A	Barnstaple St N		Major
B	Manteo Way		Minor
C	Barnstaple St S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Barnstaple St S	7.46		✓	2.42	119.9		-

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 - Manteo Way	One lane plus flare	10.00	10.00	6.34	3.76	3.47	✓	2.00	71	49

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	590	0.101	0.254	0.160	0.363
B-C	728	0.104	0.264	-	-
C-B	658	0.239	0.239	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 Base	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 (Veh/hr)	Scaling Factor (%)
A - Barnstaple St N		✓	468	100.000
B - Manteo Way		✓	426	100.000
C - Barnstaple St S		✓	449	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	235	233
	B - Manteo Way	262	0	164
	C - Barnstaple St S	329	120	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	10	4
	B - Manteo Way	10	0	3
	C - Barnstaple St S	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-C	0.65	35.68	1.7	8.8	E
B-A	0.86	64.91	4.8	25.3	F
C-A					
C-B	0.25	9.12	0.3	1.5	A
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	123	540	0.229	122	0.3	8.592	A
B-A	197	408	0.484	194	0.9	16.548	C
C-A	248			248			
C-B	90	568	0.159	90	0.2	7.508	A
A-B	177			177			
A-C	175			175			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	147	471	0.313	147	0.4	11.085	B
B-A	236	381	0.619	233	1.5	23.991	C
C-A	296			296			
C-B	108	551	0.196	108	0.2	8.117	A
A-B	211			211			
A-C	209			209			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	181	307	0.588	177	1.3	27.013	D
B-A	288	338	0.853	278	4.2	52.239	F

C-A	362			362			
C-B	132	527	0.251	132	0.3	9.106	A
A-B	259			259			
A-C	257			257			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	181	278	0.649	179	1.7	35.681	E
B-A	288	337	0.857	286	4.8	64.909	F
C-A	362			362			
C-B	132	527	0.251	132	0.3	9.122	A
A-B	259			259			
A-C	257			257			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	147	448	0.329	152	0.5	12.342	B
B-A	236	380	0.620	248	1.7	29.412	D
C-A	296			296			
C-B	108	551	0.196	108	0.2	8.138	A
A-B	211			211			
A-C	209			209			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	123	534	0.231	124	0.3	8.811	A
B-A	197	407	0.484	200	1.0	17.627	C
C-A	248			248			
C-B	90	568	0.159	91	0.2	7.536	A
A-B	177			177			
A-C	175			175			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B-A	0.90	0.55	1.00	1.40	1.45			N/A	N/A
C-B	0.19	0.00	0.00	0.19	0.19			N/A	N/A

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.45	0.04	0.35	1.16	1.33			N/A	N/A
B-A	1.52	0.09	1.16	2.97	3.98			N/A	N/A
C-B	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	1.33	0.03	0.29	1.33	5.28			N/A	N/A
B-A	4.17	0.06	0.93	11.80	18.90			N/A	N/A
C-B	0.33	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	1.70	0.04	0.35	4.15	8.78			N/A	N/A
B-A	4.81	0.04	0.42	13.21	25.30			N/A	N/A
C-B	0.33	0.03	0.31	1.16	1.48			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.50	0.04	0.42	1.29	1.43			N/A	N/A
B-A	1.75	0.04	0.40	4.67	8.44			N/A	N/A
C-B	0.25	0.00	0.00	0.25	0.25			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.30	0.03	0.31	1.03	1.29			N/A	N/A
B-A	0.97	0.03	0.31	1.86	4.87			N/A	N/A
C-B	0.19	0.00	0.00	0.19	0.19			N/A	N/A

2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Manteo Way - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Barnstaple Street / Manteo Way	T-Junction	Two-way	Two-way	Two-way		16.84	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.84	C

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	2024 Base	PM	ONE HOUR	15:30	17:00	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 (Veh/hr)	Scaling Factor (%)
A - Barnstaple St N		✓	674	100.000
B - Manteo Way		✓	366	100.000
C - Barnstaple St S		✓	502	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	343	331
	B - Manteo Way	243	0	123
	C - Barnstaple St S	323	179	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	4	2
	B - Manteo Way	4	0	2
	C - Barnstaple St S	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS

B-C	0.62	41.62	1.5	6.8	E
B-A	0.87	75.22	5.2	26.2	F
C-A					
C-B	0.42	13.13	0.7	3.1	B
A-B					
A-C					

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	93	525	0.176	92	0.2	8.286	A
B-A	183	395	0.463	180	0.8	16.490	C
C-A	243			243			
C-B	135	528	0.255	133	0.3	9.086	A
A-B	258			258			
A-C	249			249			

15:45 - 16:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	111	451	0.245	110	0.3	10.532	B
B-A	218	359	0.608	216	1.5	24.662	C
C-A	290			290			
C-B	161	504	0.319	160	0.5	10.452	B
A-B	308			308			
A-C	298			298			

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	135	257	0.528	133	1.0	28.398	D
B-A	268	308	0.868	256	4.4	58.692	F
C-A	356			356			
C-B	197	471	0.418	196	0.7	13.043	B
A-B	378			378			
A-C	364			364			

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	135	218	0.621	134	1.5	41.619	E
B-A	268	307	0.871	264	5.2	75.218	F
C-A	356			356			
C-B	197	471	0.418	197	0.7	13.130	B
A-B	378			378			
A-C	364			364			

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	111	426	0.260	115	0.4	11.753	B
B-A	218	359	0.609	232	1.7	31.119	D
C-A	290			290			
C-B	161	504	0.319	162	0.5	10.540	B
A-B	308			308			
A-C	298			298			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	93	519	0.178	93	0.2	8.457	A
B-A	183	394	0.464	186	0.9	17.537	C
C-A	243			243			
C-B	135	528	0.255	135	0.3	9.171	A
A-B	258			258			
A-C	249			249			

Queue Variation Results for each time segment

15:30 - 15:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B-A	0.83	0.55	1.00	1.40	1.45			N/A	N/A
C-B	0.34	0.00	0.00	0.34	0.34			N/A	N/A

15:45 - 16:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B-A	1.45	0.09	1.11	2.87	3.86			N/A	N/A
C-B	0.46	0.00	0.00	0.46	0.46			N/A	N/A

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	1.05	0.03	0.28	1.05	2.76			N/A	N/A
B-A	4.39	0.07	1.26	12.23	18.89			N/A	N/A
C-B	0.70	0.03	0.26	0.70	0.70			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	1.49	0.04	0.41	3.90	6.75			N/A	N/A
B-A	5.16	0.05	0.47	14.68	26.18			N/A	N/A
C-B	0.71	0.03	0.29	1.23	3.14			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.36	0.03	0.31	0.99	1.25			N/A	N/A
B-A	1.67	0.04	0.39	4.41	8.12			N/A	N/A
C-B	0.48	0.04	0.41	1.24	1.37			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.22	0.03	0.27	0.48	0.80			N/A	N/A
B-A	0.89	0.03	0.30	1.51	4.44			N/A	N/A
C-B	0.35	0.03	0.27	0.49	0.92			N/A	N/A

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Manteo Way - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Barnstaple Street / Manteo Way	T-Junction	Two-way	Two-way	Two-way		29.08	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	29.08	D

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)
D3	2028 Base	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 (Veh/hr)	Scaling Factor (%)
A - Barnstaple St N		✓	484	100.000
B - Manteo Way		✓	441	100.000
C - Barnstaple St S		✓	464	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	243	241
	B - Manteo Way	271	0	170
	C - Barnstaple St S	340	124	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	10	4
	B - Manteo Way	10	0	3
	C - Barnstaple St S	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS

B-C	0.87	85.50	4.2	17.4	F
B-A	0.92	88.84	6.8	31.7	F
C-A					
C-B	0.26	9.33	0.4	1.2	A
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	128	531	0.241	127	0.3	8.886	A
B-A	204	403	0.506	200	1.0	17.411	C
C-A	256			256			
C-B	93	565	0.165	93	0.2	7.602	A
A-B	183			183			
A-C	181			181			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	153	453	0.338	152	0.5	11.945	B
B-A	244	375	0.650	241	1.7	26.289	D
C-A	306			306			
C-B	111	547	0.204	111	0.3	8.252	A
A-B	218			218			
A-C	217			217			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	261	0.718	180	2.2	41.989	E
B-A	298	329	0.906	284	5.4	64.217	F
C-A	374			374			
C-B	137	522	0.261	136	0.3	9.314	A
A-B	268			268			
A-C	265			265			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	214	0.874	179	4.2	85.500	F
B-A	298	326	0.915	293	6.8	88.839	F
C-A	374			374			
C-B	137	522	0.261	137	0.4	9.332	A
A-B	268			268			
A-C	265			265			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	153	415	0.368	167	0.6	15.341	C
B-A	244	372	0.655	263	2.1	37.367	E
C-A	306			306			
C-B	111	547	0.204	112	0.3	8.276	A
A-B	218			218			
A-C	217			217			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	128	522	0.245	129	0.3	9.176	A
B-A	204	403	0.506	208	1.1	18.842	C
C-A	256			256			
C-B	93	565	0.165	94	0.2	7.634	A
A-B	183			183			
A-C	181			181			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.31	0.00	0.00	0.31	0.31			N/A	N/A
B-A	0.99	0.55	1.00	1.40	1.45			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.50	0.04	0.44	1.27	1.39			N/A	N/A
B-A	1.73	0.09	1.20	3.67	4.95			N/A	N/A
C-B	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	2.18	0.04	0.35	5.21	11.48			N/A	N/A
B-A	5.44	0.09	1.64	14.68	21.59			N/A	N/A
C-B	0.35	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	4.24	0.07	1.44	11.56	17.38			N/A	N/A
B-A	6.82	0.06	1.28	19.67	31.74			N/A	N/A
C-B	0.35	0.03	0.31	1.19	1.19			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.60	0.04	0.40	1.13	1.82			N/A	N/A
B-A	2.08	0.04	0.39	5.55	10.33			N/A	N/A
C-B	0.26	0.00	0.00	0.26	0.26			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.33	0.03	0.30	1.14	1.17			N/A	N/A
B-A	1.07	0.03	0.30	1.71	5.31			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Manteo Way - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Barnstaple Street / Manteo Way	T-Junction	Two-way	Two-way	Two-way		29.46	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	29.46	D

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)
D4	2028 Base	PM	ONE HOUR	15:30	17:00	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 (Veh/hr)	Scaling Factor (%)
A - Barnstaple St N		✓	699	100.000
B - Manteo Way		✓	380	100.000
C - Barnstaple St S		✓	521	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	356	343
	B - Manteo Way	252	0	128
	C - Barnstaple St S	335	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	4	2
	B - Manteo Way	4	0	2
	C - Barnstaple St S	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS

B-C	0.96	132.44	5.3	16.6	F
B-A	0.94	108.35	7.8	33.1	F
C-A					
C-B	0.44	13.86	0.8	3.3	B
A-B					
A-C					

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	515	0.187	95	0.2	8.574	A
B-A	190	388	0.489	186	0.9	17.521	C
C-A	252			252			
C-B	140	524	0.267	139	0.4	9.314	A
A-B	268			268			
A-C	258			258			

15:45 - 16:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	115	429	0.268	115	0.4	11.414	B
B-A	227	351	0.645	223	1.7	27.590	D
C-A	301			301			
C-B	167	499	0.335	167	0.5	10.819	B
A-B	320			320			
A-C	308			308			

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	141	190	0.742	133	2.3	57.660	F
B-A	277	297	0.934	260	6.1	75.308	F
C-A	369			369			
C-B	205	464	0.441	204	0.8	13.748	B
A-B	392			392			
A-C	378			378			

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	141	147	0.960	129	5.3	132.444	F
B-A	277	295	0.940	270	7.8	108.345	F
C-A	369			369			
C-B	205	464	0.441	205	0.8	13.857	B
A-B	392			392			
A-C	378			378			

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	115	382	0.301	135	0.4	15.652	C
B-A	227	348	0.651	250	2.1	42.933	E
C-A	301			301			
C-B	167	499	0.335	168	0.5	10.926	B
A-B	320			320			
A-C	308			308			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	506	0.190	97	0.2	8.815	A
B-A	190	387	0.490	194	1.0	18.978	C
C-A	252			252			
C-B	140	524	0.267	141	0.4	9.410	A
A-B	268			268			
A-C	258			258			

Queue Variation Results for each time segment

15:30 - 15:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B-A	0.92	0.55	1.00	1.40	1.45			N/A	N/A
C-B	0.36	0.00	0.00	0.36	0.36			N/A	N/A

15:45 - 16:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.36	0.03	0.31	1.01	1.26			N/A	N/A
B-A	1.68	0.08	1.15	3.64	4.94			N/A	N/A
C-B	0.50	0.00	0.00	0.50	0.50			N/A	N/A

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	2.28	0.04	0.38	5.95	11.70			N/A	N/A
B-A	6.05	0.13	2.54	15.50	21.84			N/A	N/A
C-B	0.77	0.03	0.26	0.77	0.77			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	5.34	0.20	2.92	12.40	16.63			N/A	N/A
B-A	7.85	0.09	1.98	21.96	33.09			N/A	N/A
C-B	0.78	0.03	0.29	1.18	3.34			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.44	0.03	0.34	1.35	1.40			N/A	N/A
B-A	2.05	0.04	0.38	5.41	10.28			N/A	N/A
C-B	0.51	0.05	0.49	1.30	1.40			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.24	0.03	0.29	0.80	1.36			N/A	N/A
B-A	1.00	0.03	0.30	1.16	4.67			N/A	N/A
C-B	0.37	0.03	0.30	0.91	1.20			N/A	N/A

2028 FY + Construction, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Manteo Way - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Barnstaple Street / Manteo Way	T-Junction	Two-way	Two-way	Two-way		30.61	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	30.61	D

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)
D5	2028 FY + Construction	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 (Veh/hr)	Scaling Factor (%)
A - Barnstaple St N		✓	492	100.000
B - Manteo Way		✓	441	100.000
C - Barnstaple St S		✓	464	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	251	241
	B - Manteo Way	271	0	170
	C - Barnstaple St S	340	124	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	13	4
	B - Manteo Way	10	0	3
	C - Barnstaple St S	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS

B-C	0.91	96.71	4.9	18.6	F
B-A	0.92	91.44	7.1	32.4	F
C-A					
C-B	0.26	9.44	0.4	1.2	A
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	128	529	0.242	127	0.3	8.920	A
B-A	204	402	0.507	200	1.0	17.504	C
C-A	256			256			
C-B	93	562	0.166	93	0.2	7.650	A
A-B	189			189			
A-C	181			181			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	153	450	0.339	152	0.5	12.039	B
B-A	244	373	0.653	241	1.7	26.541	D
C-A	306			306			
C-B	111	544	0.205	111	0.3	8.319	A
A-B	226			226			
A-C	217			217			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	255	0.733	180	2.3	44.340	E
B-A	298	327	0.911	283	5.6	65.636	F
C-A	374			374			
C-B	137	518	0.264	136	0.4	9.419	A
A-B	276			276			
A-C	265			265			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	206	0.906	177	4.9	96.705	F
B-A	298	324	0.921	292	7.1	91.437	F
C-A	374			374			
C-B	137	518	0.264	137	0.4	9.438	A
A-B	276			276			
A-C	265			265			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	153	411	0.372	170	0.6	15.935	C
B-A	244	370	0.659	263	2.1	38.579	E
C-A	306			306			
C-B	111	544	0.205	112	0.3	8.344	A
A-B	226			226			
A-C	217			217			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	128	521	0.246	129	0.3	9.220	A
B-A	204	402	0.508	208	1.1	18.978	C
C-A	256			256			
C-B	93	562	0.166	94	0.2	7.682	A
A-B	189			189			
A-C	181			181			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.31	0.00	0.00	0.31	0.31			N/A	N/A
B-A	0.99	0.55	1.00	1.40	1.45			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.50	0.04	0.44	1.28	1.40			N/A	N/A
B-A	1.74	0.09	1.20	3.72	5.01			N/A	N/A
C-B	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	2.31	0.04	0.36	5.83	12.11			N/A	N/A
B-A	5.58	0.09	1.78	14.92	21.78			N/A	N/A
C-B	0.35	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	4.85	0.09	1.59	12.81	18.59			N/A	N/A
B-A	7.07	0.07	1.45	20.37	32.42			N/A	N/A
C-B	0.36	0.03	0.31	1.21	1.23			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.61	0.04	0.39	1.22	1.90			N/A	N/A
B-A	2.11	0.04	0.39	5.65	10.52			N/A	N/A
C-B	0.26	0.00	0.00	0.26	0.26			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.33	0.03	0.30	1.13	1.25			N/A	N/A
B-A	1.07	0.03	0.30	1.68	5.32			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

2028 FY + Construction, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Manteo Way - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Barnstaple Street / Manteo Way	T-Junction	Two-way	Two-way	Two-way		41.14	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	41.14	E

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)
D6	2028 FY + Construction	PM	ONE HOUR	15:30	17:00	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 (Veh/hr)	Scaling Factor (%)
A - Barnstaple St N		✓	699	100.000
B - Manteo Way		✓	388	100.000
C - Barnstaple St S		✓	521	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	356	343
	B - Manteo Way	260	0	128
	C - Barnstaple St S	335	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	4	2
	B - Manteo Way	7	0	2
	C - Barnstaple St S	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS

B-C	1.01	186.08	7.1	24.6	F
B-A	1.00	148.05	11.4	38.4	F
C-A					
C-B	0.44	13.86	0.8	3.3	B
A-B					
A-C					

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	503	0.192	95	0.2	8.817	A
B-A	196	378	0.518	192	1.0	18.965	C
C-A	252			252			
C-B	140	524	0.267	139	0.4	9.314	A
A-B	268			268			
A-C	258			258			

15:45 - 16:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	115	405	0.284	114	0.4	12.367	B
B-A	234	342	0.684	230	2.0	31.238	D
C-A	301			301			
C-B	167	499	0.335	167	0.5	10.819	B
A-B	320			320			
A-C	308			308			

16:00 - 16:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	141	140	1.008	120	5.6	128.390	F
B-A	286	289	0.992	262	8.0	93.423	F
C-A	369			369			
C-B	205	464	0.441	204	0.8	13.748	B
A-B	392			392			
A-C	378			378			

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	141	147	0.957	135	7.1	186.083	F
B-A	286	287	0.999	273	11.4	148.052	F
C-A	369			369			
C-B	205	464	0.441	205	0.8	13.857	B
A-B	392			392			
A-C	378			378			

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	115	318	0.362	141	0.6	23.333	C
B-A	234	337	0.694	269	2.6	66.921	F
C-A	301			301			
C-B	167	499	0.335	168	0.5	10.924	B
A-B	320			320			
A-C	308			308			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	491	0.196	98	0.2	9.177	A
B-A	196	377	0.519	202	1.1	21.155	C
C-A	252			252			
C-B	140	524	0.267	141	0.4	9.410	A
A-B	268			268			
A-C	258			258			

Queue Variation Results for each time segment

15:30 - 15:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B-A	1.03	0.54	1.03	1.15	1.15			N/A	N/A
C-B	0.36	0.00	0.00	0.36	0.36			N/A	N/A

15:45 - 16:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.39	0.03	0.33	1.28	1.28			N/A	N/A
B-A	1.97	0.08	1.23	4.46	6.16			N/A	N/A
C-B	0.50	0.00	0.00	0.50	0.50			N/A	N/A

16:00 - 16:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	5.63	0.20	3.05	13.18	17.74			N/A	N/A
B-A	8.02	0.33	4.81	18.50	24.53			N/A	N/A
C-B	0.77	0.03	0.26	0.77	0.77			N/A	N/A

16:15 - 16:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	7.14	0.17	3.45	17.78	24.57			N/A	N/A
B-A	11.44	0.27	6.18	28.19	38.39			N/A	N/A
C-B	0.78	0.03	0.29	1.18	3.34			N/A	N/A

16:30 - 16:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.59	0.03	0.30	1.45	2.76			N/A	N/A
B-A	2.61	0.04	0.40	7.02	13.17			N/A	N/A
C-B	0.51	0.05	0.49	1.30	1.40			N/A	N/A

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.25	0.03	0.26	0.47	0.50			N/A	N/A
B-A	1.13	0.03	0.29	1.47	4.96			N/A	N/A
C-B	0.37	0.03	0.30	0.91	1.20			N/A	N/A

2028 FY + Construction + CME Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Manteo Way - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Barnstaple Street / Manteo Way	T-Junction	Two-way	Two-way	Two-way		31.50	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.50	D

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)
D7	2028 FY + Construction + CME Dev	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 (Veh/hr)	Scaling Factor (%)
A - Barnstaple St N		✓	499	100.000
B - Manteo Way		✓	441	100.000
C - Barnstaple St S		✓	464	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	258	241
	B - Manteo Way	271	0	170
	C - Barnstaple St S	340	124	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barnstaple St N	B - Manteo Way	C - Barnstaple St S
From	A - Barnstaple St N	0	13	4
	B - Manteo Way	10	0	3
	C - Barnstaple St S	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS

B-C	0.92	102.95	5.2	19.2	F
B-A	0.92	92.98	7.2	32.7	F
C-A					
C-B	0.26	9.49	0.4	1.3	A
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	128	528	0.242	127	0.3	8.937	A
B-A	204	401	0.508	200	1.0	17.550	C
C-A	256			256			
C-B	93	561	0.166	93	0.2	7.672	A
A-B	194			194			
A-C	181			181			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	153	449	0.340	152	0.5	12.087	B
B-A	244	373	0.654	241	1.8	26.666	D
C-A	306			306			
C-B	111	542	0.206	111	0.3	8.352	A
A-B	232			232			
A-C	217			217			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	253	0.741	180	2.4	45.574	E
B-A	298	327	0.914	283	5.6	66.340	F
C-A	374			374			
C-B	137	516	0.265	136	0.4	9.471	A
A-B	284			284			
A-C	265			265			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	203	0.923	176	5.2	102.954	F
B-A	298	323	0.924	292	7.2	92.984	F
C-A	374			374			
C-B	137	516	0.265	137	0.4	9.489	A
A-B	284			284			
A-C	265			265			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	153	409	0.374	171	0.6	16.271	C
B-A	244	369	0.661	264	2.1	39.220	E
C-A	306			306			
C-B	111	542	0.206	112	0.3	8.375	A
A-B	232			232			
A-C	217			217			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	128	520	0.246	129	0.3	9.239	A
B-A	204	401	0.509	208	1.1	19.045	C
C-A	256			256			
C-B	93	561	0.166	94	0.2	7.706	A
A-B	194			194			
A-C	181			181			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B-A	0.99	0.55	1.00	1.40	1.45			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.51	0.04	0.44	1.28	1.40			N/A	N/A
B-A	1.75	0.09	1.20	3.74	5.06			N/A	N/A
C-B	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	2.38	0.04	0.37	6.12	12.41			N/A	N/A
B-A	5.65	0.10	1.86	15.04	21.87			N/A	N/A
C-B	0.36	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	5.20	0.11	1.94	13.47	19.22			N/A	N/A
B-A	7.20	0.07	1.05	20.69	32.70			N/A	N/A
C-B	0.36	0.03	0.31	1.21	1.25			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.61	0.04	0.39	1.25	1.94			N/A	N/A
B-A	2.13	0.04	0.39	5.71	10.62			N/A	N/A
C-B	0.26	0.00	0.00	0.26	0.26			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.33	0.03	0.30	1.12	1.28			N/A	N/A
B-A	1.08	0.03	0.30	1.67	5.33			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A