Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.4.1693

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Filename: Hamble Lane - Site Access.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Picady\2022
Report generation date: 22/11/2022 11:38:35

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
	Design Year With Development					
Stream B-AC	0.1	39.02	0.13	0.1	16.32	0.09
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00

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	
Location	
Site number	
Date	16/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

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 period length (min)	Time segment length (min)
D7	Design Year With Development	AM	ONE HOUR	07:15	08:45		15
D8	Design Year With Development	PM	FLAT	16:00	17:30	90	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Design Year With Development , AM

Data Errors and Warnings

No errors or warnings

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	untitled	T-Junction	Two-way	Two-way	Two-way		0.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.65	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hamble Lane North		Major
B	Site Access		Minor
C	Hamble Lane South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hamble Lane South	6.00			120.0	✓	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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	3.65	36	34

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	539	0.098	0.248	0.156	0.354
B-C	687	0.105	0.266	-	-
C-B	643	0.249	0.249	-	-

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)
D7	Design Year With Development	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Lane North		✓	857	100.000
B - Site Access		✓	12	100.000
C - Hamble Lane South		✓	537	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Lane North	B - Site Access	C - Hamble Lane South
From	A - Hamble Lane North	0	24	833
	B - Site Access	12	0	0
	C - Hamble Lane South	537	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Lane North	B - Site Access	C - Hamble Lane South
From	A - Hamble Lane North	0	58	1
	B - Site Access	100	0	0
	C - Hamble Lane South	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.13	39.02	0.1	E
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	157	0.057	9	0.1	24.206	C
C-AB	0	474	0.000	0	0.0	0.000	A
C-A	404			404			
A-B	18			18			
A-C	627			627			

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	136	0.080	11	0.1	28.813	D
C-AB	0	442	0.000	0	0.0	0.000	A
C-A	483			483			
A-B	22			22			
A-C	749			749			

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-AC	13	105	0.125	13	0.1	38.885	E
C-AB	0	398	0.000	0	0.0	0.000	A
C-A	591			591			
A-B	26			26			
A-C	917			917			

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-AC	13	105	0.125	13	0.1	39.017	E
C-AB	0	398	0.000	0	0.0	0.000	A
C-A	591			591			
A-B	26			26			
A-C	917			917			

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-AC	11	136	0.080	11	0.1	28.951	D
C-AB	0	442	0.000	0	0.0	0.000	A
C-A	483			483			
A-B	22			22			
A-C	749			749			

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-AC	9	157	0.057	9	0.1	24.315	C
C-AB	0	474	0.000	0	0.0	0.000	A
C-A	404			404			
A-B	18			18			
A-C	627			627			

Design Year With Development, PM

Data Errors and Warnings

No errors or warnings

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	untitled	T-Junction	Two-way	Two-way	Two-way		0.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.30	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	Design Year With Development	PM	FLAT	16:00	17:30	90	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 - Hamble Lane North		✓	483	100.000
B - Site Access		✓	23	100.000
C - Hamble Lane South		✓	905	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Lane North	B - Site Access	C - Hamble Lane South
From	A - Hamble Lane North	0	2	481
	B - Site Access	23	0	0
	C - Hamble Lane South	905	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Lane North	B - Site Access	C - Hamble Lane South
From	A - Hamble Lane North	0	100	1
	B - Site Access	13	0	0
	C - Hamble Lane South	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.09	16.32	0.1	C
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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-AC	23	244	0.094	23	0.1	16.256	C
C-AB	0	519	0.000	0	0.0	0.000	A
C-A	905			905			
A-B	2			2			
A-C	481			481			

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-AC	23	244	0.094	23	0.1	16.315	C
C-AB	0	519	0.000	0	0.0	0.000	A
C-A	905			905			
A-B	2			2			
A-C	481			481			

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-AC	23	244	0.094	23	0.1	16.315	C
C-AB	0	519	0.000	0	0.0	0.000	A
C-A	905			905			
A-B	2			2			
A-C	481			481			

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-AC	23	244	0.094	23	0.1	16.315	C
C-AB	0	519	0.000	0	0.0	0.000	A
C-A	905			905			
A-B	2			2			
A-C	481			481			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	244	0.094	23	0.1	16.315	C
C-AB	0	519	0.000	0	0.0	0.000	A
C-A	905			905			
A-B	2			2			
A-C	481			481			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	244	0.094	23	0.1	16.315	C
C-AB	0	519	0.000	0	0.0	0.000	A
C-A	905			905			
A-B	2			2			
A-C	481			481			

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Hamble Lane - Satchell Lane Calibrated AM.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Picady\2022
Report generation date: 18/11/2022 18:31:54

Summary of junction performance

	AM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
Stream B-AC	3.0	82.79	0.77
Stream C-AB	0.4	5.69	0.16
	Design Year + Development		
Stream B-AC	4.3	119.99	0.84
Stream C-AB	0.5	5.73	0.16

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	15	✓
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	15	✓

Analysis Set Details

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

Design Year, AM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Satchell Lane	T-Junction	Two-way	Two-way	Two-way		6.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.87	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hamble Lane N		Major
B	Satchell Lane		Minor
C	Hamble Lane S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hamble Lane S	7.10			74.0	✓	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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Satchell Lane	One lane	4.46	30	77

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	602	0.104	0.264	0.166	0.377
B-C	771	0.113	0.284	-	-
C-B	617	0.228	0.228	-	-

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.

Stream Intercept Adjustments

Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
B-AC	✓		-100

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Lane N		FLAT	✓	1078	100.000
B - Satchell Lane		FLAT	✓	139	100.000
C - Hamble Lane S		FLAT	✓	537	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	268	810
	B - Satchell Lane	116	0	23
	C - Hamble Lane S	498	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	0	1
	B - Satchell Lane	0	0	0
	C - Hamble Lane S	2	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.77	82.79	3.0	F	139	139
C-AB	0.16	5.69	0.4	A	117	117
C-A					420	420
A-B					268	268
A-C					810	810

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	181	0.767	129	0.0	2.5	61.160	F
C-AB	116	29	751	0.154	114	0.0	0.4	5.658	A
C-A	421	105			421				
A-B	268	67			268				
A-C	810	203			810				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	181	0.769	138	2.5	2.8	78.812	F
C-AB	117	29	752	0.156	117	0.4	0.4	5.691	A
C-A	420	105			420				
A-B	268	67			268				
A-C	810	203			810				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	181	0.769	138	2.8	2.9	81.565	F
C-AB	117	29	752	0.156	117	0.4	0.4	5.689	A
C-A	420	105			420				
A-B	268	67			268				
A-C	810	203			810				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	181	0.769	139	2.9	3.0	82.788	F
C-AB	117	29	752	0.156	117	0.4	0.4	5.689	A
C-A	420	105			420				
A-B	268	67			268				
A-C	810	203			810				

Design Year + Development, AM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Satchell Lane	T-Junction	Two-way	Two-way	Two-way		9.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.47	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Lane N		FLAT	✓	1102	100.000
B - Satchell Lane		FLAT	✓	139	100.000
C - Hamble Lane S		FLAT	✓	549	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	268	834
	B - Satchell Lane	116	0	23
	C - Hamble Lane S	510	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	0	3
	B - Satchell Lane	0	0	0
	C - Hamble Lane S	4	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.84	119.99	4.3	F	139	139
C-AB	0.16	5.73	0.5	A	122	122
C-A					427	427
A-B					268	268
A-C					834	834

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	166	0.836	126	0.0	3.2	76.035	F
C-AB	121	30	752	0.161	119	0.0	0.5	5.692	A
C-A	428	107			428				
A-B	268	67			268				
A-C	834	209			834				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	166	0.838	136	3.2	3.8	108.075	F
C-AB	122	31	753	0.163	122	0.5	0.5	5.729	A
C-A	427	107			427				
A-B	268	67			268				
A-C	834	209			834				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	166	0.838	138	3.8	4.1	115.883	F
C-AB	123	31	753	0.163	123	0.5	0.5	5.730	A
C-A	426	107			426				
A-B	268	67			268				
A-C	834	209			834				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	166	0.838	138	4.1	4.3	119.987	F
C-AB	123	31	753	0.163	123	0.5	0.5	5.730	A
C-A	426	107			426				
A-B	268	67			268				
A-C	834	209			834				

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.4.1693

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

Filename: Hamble Lane - Satchell Lane Calibrated PM.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Picady\2022
Report generation date: 22/11/2022 11:42:32

Summary of junction performance

	PM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
Stream B-AC	3.0	46.62	0.76
Stream C-AB	0.5	3.96	0.17
	Design Year + Development		
Stream B-AC	3.2	50.13	0.77
Stream C-AB	0.5	3.92	0.17

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	15	✓
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	15	✓

Analysis Set Details

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

Design Year, PM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Satchell Lane	T-Junction	Two-way	Two-way	Two-way		6.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.69	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hamble Lane N		Major
B	Satchell Lane		Minor
C	Hamble Lane S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hamble Lane S	7.10			74.0	✓	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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Satchell Lane	One lane	4.46	30	77

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	602	0.104	0.264	0.166	0.377
B-C	771	0.113	0.284	-	-
C-B	617	0.228	0.228	-	-

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.

Stream Intercept Adjustments

Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
B-AC	✓		-15

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Lane N		FLAT	✓	624	100.000
B - Satchell Lane		FLAT	✓	238	100.000
C - Hamble Lane S		FLAT	✓	905	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	182	442
	B - Satchell Lane	199	0	39
	C - Hamble Lane S	866	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	0	1
	B - Satchell Lane	1	0	0
	C - Hamble Lane S	1	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.76	46.62	3.0	E	238	238
C-AB	0.17	3.96	0.5	A	186	186
C-A					719	719
A-B					182	182
A-C					442	442

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	315	0.757	228	0.0	2.6	37.895	E
C-AB	185	46	1098	0.168	183	0.0	0.5	3.934	A
C-A	720	180			720				
A-B	182	46			182				
A-C	442	111			442				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	314	0.758	237	2.6	2.8	45.582	E
C-AB	186	47	1099	0.170	186	0.5	0.5	3.953	A
C-A	719	180			719				
A-B	182	46			182				
A-C	442	111			442				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	314	0.758	238	2.8	2.9	46.322	E
C-AB	186	47	1099	0.170	186	0.5	0.5	3.955	A
C-A	719	180			719				
A-B	182	46			182				
A-C	442	111			442				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	314	0.758	238	2.9	3.0	46.619	E
C-AB	186	47	1099	0.170	186	0.5	0.5	3.955	A
C-A	719	180			719				
A-B	182	46			182				
A-C	442	111			442				

Design Year + Development, PM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Satchell Lane	T-Junction	Two-way	Two-way	Two-way		7.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.06	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Lane N		FLAT	✓	626	100.000
B - Satchell Lane		FLAT	✓	238	100.000
C - Hamble Lane S		FLAT	✓	928	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	182	444
	B - Satchell Lane	199	0	39
	C - Hamble Lane S	889	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Lane N	B - Satchell Lane	C - Hamble Lane S
From	A - Hamble Lane N	0	0	2
	B - Satchell Lane	1	0	0
	C - Hamble Lane S	1	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.77	50.13	3.2	F	238	238
C-AB	0.17	3.92	0.5	A	194	194
C-A					734	734
A-B					182	182
A-C					444	444

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	309	0.770	227	0.0	2.8	39.867	E
C-AB	193	48	1114	0.173	191	0.0	0.5	3.899	A
C-A	735	184			735				
A-B	182	46			182				
A-C	444	111			444				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	308	0.772	237	2.8	3.0	48.784	E
C-AB	195	49	1116	0.175	195	0.5	0.5	3.919	A
C-A	733	183			733				
A-B	182	46			182				
A-C	444	111			444				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	308	0.772	238	3.0	3.1	49.743	E
C-AB	195	49	1116	0.175	195	0.5	0.5	3.920	A
C-A	733	183			733				
A-B	182	46			182				
A-C	444	111			444				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	238	60	308	0.772	238	3.1	3.2	50.134	F
C-AB	195	49	1116	0.175	195	0.5	0.5	3.921	A
C-A	733	183			733				
A-B	182	46			182				
A-C	444	111			444				

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

Filename: Hamble Lane - Hound Road Calibrated.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Arcady\2022
Report generation date: 22/11/2022 11:53:09

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
	Design Year					
1 - Hamble Lane N	4.7	22.95	0.83	1.6	9.20	0.62
2 - Hamble Lane S	0.6	3.55	0.38	2.2	7.66	0.69
3 - Hound Road	1.0	5.32	0.51	0.5	4.42	0.32
	Design Year + Development					
1 - Hamble Lane N	6.4	30.47	0.87	1.6	9.25	0.62
2 - Hamble Lane S	0.6	3.67	0.39	2.4	8.06	0.71
3 - Hound Road	1.0	5.41	0.51	0.5	4.49	0.33

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	15	✓
D2	Design Year	PM	FLAT	16:15	17:15	60	15	✓
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	15	✓
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	15	✓

Analysis Set Details

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

Design Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Hound Road	Standard Roundabout		1, 2, 3	11.29	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.29	B

Arms

Arms

Arm	Name	Description	No give-way line
1	Hamble Lane N		
2	Hamble Lane S		
3	Hound Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Hamble Lane N	3.20	7.50	22.1	22.0	28.6	43.0		
2 - Hamble Lane S	4.00	7.40	11.4	34.2	29.3	40.4		
3 - Hound Road	2.80	6.10	9.9	33.0	28.6	34.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Hamble Lane N	0.647	1700
2 - Hamble Lane S	0.656	1712
3 - Hound Road	0.586	1337

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Hamble Lane N	Direct		-510
3 - Hound Road	Direct		300

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	765	100.000
2 - Hamble Lane S		FLAT	✓	614	100.000
3 - Hound Road		FLAT	✓	694	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	7	690	68
	2 - Hamble Lane S	422	3	189
	3 - Hound Road	300	392	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	0	1	3
	2 - Hamble Lane S	2	0	2
	3 - Hound Road	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.83	22.95	4.7	C	765	765
2 - Hamble Lane S	0.38	3.55	0.6	A	614	614
3 - Hound Road	0.51	5.32	1.0	A	694	694

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	765	191	395	922	0.830	748	725	0.0	4.3	19.134	C
2 - Hamble Lane S	614	154	75	1629	0.377	612	1067	0.0	0.6	3.529	A
3 - Hound Road	694	173	430	1372	0.506	690	257	0.0	1.0	5.249	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	765	191	397	920	0.831	764	729	4.3	4.6	22.595	C
2 - Hamble Lane S	614	154	77	1628	0.377	614	1084	0.6	0.6	3.551	A
3 - Hound Road	694	173	432	1371	0.506	694	259	1.0	1.0	5.317	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	765	191	397	920	0.831	765	729	4.6	4.7	22.841	C
2 - Hamble Lane S	614	154	77	1627	0.377	614	1085	0.6	0.6	3.551	A
3 - Hound Road	694	173	432	1371	0.506	694	259	1.0	1.0	5.317	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	765	191	397	920	0.831	765	729	4.7	4.7	22.947	C
2 - Hamble Lane S	614	154	77	1627	0.377	614	1085	0.6	0.6	3.551	A
3 - Hound Road	694	173	432	1371	0.506	694	259	1.0	1.0	5.317	A

Design Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Hound Road	Standard Roundabout		1, 2, 3	7.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.52	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	639	100.000
2 - Hamble Lane S		FLAT	✓	1064	100.000
3 - Hound Road		FLAT	✓	392	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	0	394	245
	2 - Hamble Lane S	705	1	358
	3 - Hound Road	157	232	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	0	1	0
	2 - Hamble Lane S	1	0	1
	3 - Hound Road	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.62	9.20	1.6	A	639	639
2 - Hamble Lane S	0.69	7.66	2.2	A	1064	1064
3 - Hound Road	0.32	4.42	0.5	A	392	392

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	639	160	235	1031	0.620	633	855	0.0	1.6	8.907	A
2 - Hamble Lane S	1064	266	246	1535	0.693	1055	622	0.0	2.2	7.372	A
3 - Hound Road	392	98	700	1210	0.324	390	601	0.0	0.5	4.379	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	639	160	236	1030	0.620	639	862	1.6	1.6	9.199	A
2 - Hamble Lane S	1064	266	248	1534	0.694	1064	627	2.2	2.2	7.658	A
3 - Hound Road	392	98	706	1207	0.325	392	606	0.5	0.5	4.416	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	639	160	236	1030	0.620	639	862	1.6	1.6	9.202	A
2 - Hamble Lane S	1064	266	248	1534	0.694	1064	627	2.2	2.2	7.661	A
3 - Hound Road	392	98	706	1207	0.325	392	606	0.5	0.5	4.416	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	639	160	236	1030	0.620	639	862	1.6	1.6	9.204	A
2 - Hamble Lane S	1064	266	248	1534	0.694	1064	627	2.2	2.2	7.664	A
3 - Hound Road	392	98	706	1207	0.325	392	606	0.5	0.5	4.416	A

Design Year + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Hound Road	Standard Roundabout		1, 2, 3	14.33	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.33	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	789	100.000
2 - Hamble Lane S		FLAT	✓	626	100.000
3 - Hound Road		FLAT	✓	694	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	7	714	68
	2 - Hamble Lane S	434	3	189
	3 - Hound Road	300	392	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	0	3	3
	2 - Hamble Lane S	4	0	2
	3 - Hound Road	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.87	30.47	6.4	D	789	789
2 - Hamble Lane S	0.39	3.67	0.6	A	626	626
3 - Hound Road	0.51	5.41	1.0	A	694	694

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	789	197	395	906	0.871	767	737	0.0	5.5	23.162	C
2 - Hamble Lane S	626	157	75	1607	0.390	623	1087	0.0	0.6	3.651	A
3 - Hound Road	694	173	442	1360	0.510	690	256	0.0	1.0	5.342	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	789	197	397	904	0.872	787	741	5.5	6.1	29.434	D
2 - Hamble Lane S	626	157	77	1606	0.390	626	1107	0.6	0.6	3.673	A
3 - Hound Road	694	173	444	1359	0.511	694	259	1.0	1.0	5.415	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	789	197	397	904	0.872	788	741	6.1	6.3	30.166	D
2 - Hamble Lane S	626	157	77	1606	0.390	626	1108	0.6	0.6	3.673	A
3 - Hound Road	694	173	444	1359	0.511	694	259	1.0	1.0	5.415	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	789	197	397	904	0.872	789	741	6.3	6.4	30.470	D
2 - Hamble Lane S	626	157	77	1606	0.390	626	1109	0.6	0.6	3.673	A
3 - Hound Road	694	173	444	1359	0.511	694	259	1.0	1.0	5.415	A

Design Year + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Hound Road	Standard Roundabout		1, 2, 3	7.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.76	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	641	100.000
2 - Hamble Lane S		FLAT	✓	1087	100.000
3 - Hound Road		FLAT	✓	392	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	0	396	245
	2 - Hamble Lane S	728	1	358
	3 - Hound Road	157	232	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Hamble Lane S	3 - Hound Road
From	1 - Hamble Lane N	0	1	0
	2 - Hamble Lane S	1	0	1
	3 - Hound Road	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.62	9.25	1.6	A	641	641
2 - Hamble Lane S	0.71	8.06	2.4	A	1087	1087
3 - Hound Road	0.33	4.49	0.5	A	392	392

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	641	160	235	1031	0.622	635	878	0.0	1.6	8.949	A
2 - Hamble Lane S	1087	272	246	1535	0.708	1078	624	0.0	2.4	7.715	A
3 - Hound Road	392	98	723	1197	0.327	390	600	0.0	0.5	4.449	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	641	160	236	1030	0.622	641	885	1.6	1.6	9.246	A
2 - Hamble Lane S	1087	272	248	1534	0.709	1087	629	2.4	2.4	8.049	A
3 - Hound Road	392	98	729	1194	0.328	392	606	0.5	0.5	4.490	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	641	160	236	1030	0.622	641	885	1.6	1.6	9.250	A
2 - Hamble Lane S	1087	272	248	1534	0.709	1087	629	2.4	2.4	8.054	A
3 - Hound Road	392	98	729	1194	0.328	392	606	0.5	0.5	4.491	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	641	160	236	1030	0.622	641	885	1.6	1.6	9.252	A
2 - Hamble Lane S	1087	272	248	1534	0.709	1087	629	2.4	2.4	8.056	A
3 - Hound Road	392	98	729	1194	0.328	392	606	0.5	0.5	4.491	A

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Hamble Lane - Portsmouth Road Calibrated AM Peak_al.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Picady\2022
Report generation date: 23/11/2022 09:20:33

Summary of junction performance

	AM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
Stream B-AC	12.9	117.00	0.96
Stream C-B	0.7	7.24	0.41
	Design Year + Development		
Stream B-AC	15.6	140.12	0.98
Stream C-B	0.7	7.36	0.41

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	15	✓
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	15	✓

Analysis Set Details

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

Design Year, AM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Portsmouth Road	T-Junction	Two-way	Two-way	Two-way		23.09	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.09	C

Arms

Arms

Arm	Name	Description	Arm type
A	Hamble Road S		Major
B	Portsmouth Road		Minor
C	Hamble Lane N		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 - Hamble Lane N	6.60		✓	3.24	198.5		-

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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Portsmouth Road	One lane	4.10	42	80

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	589	0.104	0.264	0.166	0.377
B-C	749	0.112	0.282	-	-
C-B	767	0.289	0.289	-	-

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.

Stream Intercept Adjustments

Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
B-AC	✓		-86
C-B	✓	QLS	300

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Road S		FLAT	✓	723	100.000
B - Portsmouth Road		FLAT	✓	422	100.000
C - Hamble Lane N		FLAT	✓	1108	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	4	719
	B - Portsmouth Road	2	0	420
	C - Hamble Lane N	766	342	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	0	1
	B - Portsmouth Road	0	0	2
	C - Hamble Lane N	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.96	117.00	12.9	F	422	422
C-A					766	766
C-B	0.41	7.24	0.7	A	342	342
A-B					4	4
A-C					719	719

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	441	0.958	391	0.0	7.8	55.397	F
C-A	766	192			766				
C-B	342	86	839	0.408	339	0.0	0.7	7.168	A
A-B	4	1			4				
A-C	719	180			719				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	441	0.958	412	7.8	10.2	92.651	F
C-A	766	192			766				
C-B	342	86	839	0.408	342	0.7	0.7	7.245	A
A-B	4	1			4				
A-C	719	180			719				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	441	0.958	416	10.2	11.8	107.155	F
C-A	766	192			766				
C-B	342	86	839	0.408	342	0.7	0.7	7.245	A
A-B	4	1			4				
A-C	719	180			719				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	441	0.958	417	11.8	12.9	116.996	F
C-A	766	192			766				
C-B	342	86	839	0.408	342	0.7	0.7	7.245	A
A-B	4	1			4				
A-C	719	180			719				

Design Year + Development, AM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Portsmouth Road	T-Junction	Two-way	Two-way	Two-way		26.67	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.67	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Road S		FLAT	✓	735	100.000
B - Portsmouth Road		FLAT	✓	422	100.000
C - Hamble Lane N		FLAT	✓	1132	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	4	731
	B - Portsmouth Road	2	0	420
	C - Hamble Lane N	790	342	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	0	3
	B - Portsmouth Road	0	0	2
	C - Hamble Lane N	4	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.98	140.12	15.6	F	422	422
C-A					790	790
C-B	0.41	7.36	0.7	A	342	342
A-B					4	4
A-C					731	731

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	432	0.976	388	0.0	8.6	59.916	F
C-A	790	198			790				
C-B	342	86	831	0.411	339	0.0	0.7	7.277	A
A-B	4	1			4				
A-C	731	183			731				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	432	0.976	409	8.6	11.7	104.939	F
C-A	790	198			790				
C-B	342	86	831	0.411	342	0.7	0.7	7.357	A
A-B	4	1			4				
A-C	731	183			731				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	432	0.976	413	11.7	13.9	125.201	F
C-A	790	198			790				
C-B	342	86	831	0.411	342	0.7	0.7	7.357	A
A-B	4	1			4				
A-C	731	183			731				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	422	105	432	0.976	415	13.9	15.6	140.118	F
C-A	790	198			790				
C-B	342	86	831	0.411	342	0.7	0.7	7.357	A
A-B	4	1			4				
A-C	731	183			731				

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.4.1693

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

Filename: Hamble Lane - Portsmouth Road Calibrated PM Peak.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Picady\2022
Report generation date: 22/11/2022 11:59:48

Summary of junction performance

	PM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
Stream B-AC	4.6	39.10	0.85
Stream C-AB	65.0	207.68	1.04
	Design Year + Development		
Stream B-AC	88.8	1592.14	4.08
Stream C-AB	78.6	251.79	1.06

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	15	✓
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	15	✓

Analysis Set Details

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

Design Year , PM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Portsmouth Road	T-Junction	Two-way	Two-way	Two-way		103.28	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	103.28	F

Arms

Arms

Arm	Name	Description	Arm type
A	Hamble Road S		Major
B	Portsmouth Road		Minor
C	Hamble Lane N		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 - Hamble Lane N	6.60		✓	3.24	198.5	✓	7.00

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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Portsmouth Road	One lane	4.10	42	80

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	589	0.104	0.264	0.166	0.377
B-C	749	0.112	0.282	-	-
C-B	767	0.289	0.289	-	-

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.

Stream Intercept Adjustments

Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
B-AC	✓		110

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Road S		FLAT	✓	826	100.000
B - Portsmouth Road		FLAT	✓	444	100.000
C - Hamble Lane N		FLAT	✓	1090	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	8	818
	B - Portsmouth Road	3	0	441
	C - Hamble Lane N	548	542	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	0	1
	B - Portsmouth Road	0	0	1
	C - Hamble Lane N	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.85	39.10	4.6	E	444	444
C-AB	1.04	207.68	65.0	F	1090	1090
C-A					0	0
A-B					8	8
A-C					818	818

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	598	0.743	433	0.0	2.6	20.751	C
C-AB	1090	273	1046	1.042	1003	0.0	21.7	51.989	F
C-A	0	0			0				
A-B	8	2			8				
A-C	818	205			818				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	587	0.756	443	2.6	2.9	24.655	C
C-AB	1090	273	1046	1.042	1026	21.7	37.6	110.746	F
C-A	0	0			0				
A-B	8	2			8				
A-C	818	205			818				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	569	0.780	443	2.9	3.3	27.885	D
C-AB	1090	273	1046	1.042	1033	37.6	51.7	161.139	F
C-A	0	0			0				
A-B	8	2			8				
A-C	818	205			818				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	525	0.846	439	3.3	4.6	39.104	E
C-AB	1090	273	1046	1.042	1037	51.7	65.0	207.679	F
C-A	0	0			0				
A-B	8	2			8				
A-C	818	205			818				

Design Year + Development, PM

Data Errors and Warnings

No errors or warnings

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	Hamble Lane - Portsmouth Road	T-Junction	Two-way	Two-way	Two-way		409.89	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	409.89	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Hamble Road S		FLAT	✓	849	100.000
B - Portsmouth Road		FLAT	✓	444	100.000
C - Hamble Lane N		FLAT	✓	1092	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	8	841
	B - Portsmouth Road	3	0	441
	C - Hamble Lane N	550	542	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hamble Road S	B - Portsmouth Road	C - Hamble Lane N
From	A - Hamble Road S	0	0	2
	B - Portsmouth Road	0	0	1
	C - Hamble Lane N	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	4.08	1592.14	88.8	F	444	444
C-AB	1.06	251.79	78.6	F	1092	1092
C-A					0	0
A-B					8	8
A-C					841	841

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	586	0.757	433	0.0	2.8	22.060	C
C-AB	1092	273	1030	1.060	994	0.0	24.4	57.791	F
C-A	0	0			0				
A-B	8	2			8				
A-C	841	210			841				

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	568	0.781	442	2.8	3.3	27.927	D
C-AB	1092	273	1030	1.060	1015	24.4	43.7	128.163	F
C-A	0	0			0				
A-B	8	2			8				
A-C	841	210			841				

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	514	0.864	437	3.3	5.0	42.711	E
C-AB	1092	273	1030	1.060	1021	43.7	61.5	191.593	F
C-A	0	0			0				
A-B	8	2			8				
A-C	841	210			841				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	444	111	109	4.076	109	5.0	88.8	1592.143	F
C-AB	1092	273	1030	1.060	1024	61.5	78.6	251.787	F
C-A	0	0			0				
A-B	8	2			8				
A-C	841	210			841				

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Hamble Lane - Lionheart Way Calibrated.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Arcady\2022
Report generation date: 22/11/2022 12:24:49

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
	Design Year					
1 - Hamble Lane N	4.5	17.76	0.82	4.4	17.52	0.82
2 - Lionheart Way	9.6	79.37	0.93	2.7	24.12	0.73
3 - Hamble Lane S	1.0	3.04	0.49	1.1	3.10	0.52
	Design Year + Development					
1 - Hamble Lane N	5.5	21.26	0.85	4.4	17.69	0.82
2 - Lionheart Way	14.6	118.75	0.97	2.7	24.33	0.73
3 - Hamble Lane S	1.0	3.12	0.50	1.1	3.16	0.53

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	15	✓
D2	Design Year	PM	FLAT	16:15	17:15	60	15	✓
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	15	✓
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	15	✓

Analysis Set Details

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

Design Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Lionheart Way	Standard Roundabout		1, 2, 3	22.32	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.32	C

Arms

Arms

Arm	Name	Description	No give-way line
1	Hamble Lane N		
2	Lionheart Way		
3	Hamble Lane S		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Hamble Lane N	3.20	9.30	10.6	39.9	26.8	61.6		
2 - Lionheart Way	3.70	7.50	10.9	26.9	24.9	34.1		
3 - Hamble Lane S	2.50	7.50	12.4	73.3	26.8	26.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Hamble Lane N	0.589	1482
2 - Lionheart Way	0.654	1663
3 - Hamble Lane S	0.633	1489

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Hamble Lane N	Direct		-200
2 - Lionheart Way	Direct		-575
3 - Hamble Lane S	Direct		1000

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	931	100.000
2 - Lionheart Way		FLAT	✓	466	100.000
3 - Hamble Lane S		FLAT	✓	1144	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	70	861
	2 - Lionheart Way	189	0	277
	3 - Hamble Lane S	956	188	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	7	3
	2 - Lionheart Way	1	0	1
	3 - Hamble Lane S	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.82	17.76	4.5	C	931	931
2 - Lionheart Way	0.93	79.37	9.6	F	466	466
3 - Hamble Lane S	0.49	3.04	1.0	A	1144	1144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	931	233	187	1133	0.822	914	1132	0.0	4.2	15.455	C
2 - Lionheart Way	466	117	846	513	0.908	441	256	0.0	6.2	41.619	E
3 - Hamble Lane S	1144	286	179	2332	0.491	1140	1108	0.0	1.0	3.010	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	931	233	188	1133	0.822	930	1142	4.2	4.4	17.603	C
2 - Lionheart Way	466	117	860	503	0.926	458	258	6.2	8.0	66.394	F
3 - Hamble Lane S	1144	286	186	2328	0.492	1144	1133	1.0	1.0	3.040	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	931	233	188	1133	0.822	931	1143	4.4	4.5	17.718	C
2 - Lionheart Way	466	117	861	503	0.927	462	258	8.0	9.0	74.761	F
3 - Hamble Lane S	1144	286	187	2327	0.492	1144	1135	1.0	1.0	3.043	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	931	233	188	1133	0.822	931	1144	4.5	4.5	17.760	C
2 - Lionheart Way	466	117	861	503	0.927	464	258	9.0	9.6	79.366	F
3 - Hamble Lane S	1144	286	188	2326	0.492	1144	1136	1.0	1.0	3.044	A

Design Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Lionheart Way	Standard Roundabout		1, 2, 3	11.60	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.60	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	922	100.000
2 - Lionheart Way		FLAT	✓	406	100.000
3 - Hamble Lane S		FLAT	✓	1236	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	121	801
	2 - Lionheart Way	101	1	304
	3 - Hamble Lane S	997	239	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	1	1
	2 - Lionheart Way	0	0	1
	3 - Hamble Lane S	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.82	17.52	4.4	C	922	922
2 - Lionheart Way	0.73	24.12	2.7	C	406	406
3 - Hamble Lane S	0.52	3.10	1.1	A	1236	1236

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	922	231	239	1127	0.818	906	1092	0.0	4.1	15.303	C
2 - Lionheart Way	406	101	787	564	0.720	397	358	0.0	2.4	20.512	C
3 - Hamble Lane S	1236	309	100	2397	0.516	1232	1084	0.0	1.1	3.076	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	922	231	240	1126	0.819	921	1098	4.1	4.3	17.376	C
2 - Lionheart Way	406	101	800	555	0.732	405	361	2.4	2.6	23.794	C
3 - Hamble Lane S	1236	309	102	2396	0.516	1236	1104	1.1	1.1	3.102	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	922	231	240	1126	0.819	922	1098	4.3	4.4	17.485	C
2 - Lionheart Way	406	101	801	555	0.732	406	361	2.6	2.6	24.046	C
3 - Hamble Lane S	1236	309	102	2396	0.516	1236	1105	1.1	1.1	3.102	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	922	231	240	1126	0.819	922	1098	4.4	4.4	17.525	C
2 - Lionheart Way	406	101	801	555	0.732	406	361	2.6	2.7	24.120	C
3 - Hamble Lane S	1236	309	102	2396	0.516	1236	1105	1.1	1.1	3.102	A

Design Year + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Lionheart Way	Standard Roundabout		1, 2, 3	30.44	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	30.44	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	955	100.000
2 - Lionheart Way		FLAT	✓	466	100.000
3 - Hamble Lane S		FLAT	✓	1156	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	70	885
	2 - Lionheart Way	189	0	277
	3 - Hamble Lane S	968	188	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	7	4
	2 - Lionheart Way	1	0	1
	3 - Hamble Lane S	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.85	21.26	5.5	C	955	955
2 - Lionheart Way	0.97	118.75	14.6	F	466	466
3 - Hamble Lane S	0.50	3.12	1.0	A	1156	1156

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	955	239	187	1123	0.850	935	1141	0.0	5.0	17.642	C
2 - Lionheart Way	466	117	867	493	0.944	436	256	0.0	7.6	49.122	E
3 - Hamble Lane S	1156	289	177	2314	0.500	1152	1126	0.0	1.0	3.087	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	955	239	188	1123	0.851	954	1152	5.0	5.3	20.924	C
2 - Lionheart Way	466	117	884	482	0.967	453	258	7.6	10.9	87.581	F
3 - Hamble Lane S	1156	289	184	2310	0.500	1156	1153	1.0	1.0	3.118	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	955	239	188	1123	0.851	955	1154	5.3	5.4	21.165	C
2 - Lionheart Way	466	117	885	481	0.968	457	258	10.9	13.0	106.058	F
3 - Hamble Lane S	1156	289	186	2309	0.501	1156	1156	1.0	1.0	3.122	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	955	239	188	1123	0.851	955	1154	5.4	5.5	21.258	C
2 - Lionheart Way	466	117	885	481	0.968	460	258	13.0	14.6	118.748	F
3 - Hamble Lane S	1156	289	186	2308	0.501	1156	1158	1.0	1.0	3.123	A

Design Year + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hamble Lane - Lionheart Way	Standard Roundabout		1, 2, 3	11.66	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.66	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N		FLAT	✓	924	100.000
2 - Lionheart Way		FLAT	✓	406	100.000
3 - Hamble Lane S		FLAT	✓	1259	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	121	803
	2 - Lionheart Way	101	1	304
	3 - Hamble Lane S	1020	239	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Hamble Lane N	2 - Lionheart Way	3 - Hamble Lane S
From	1 - Hamble Lane N	0	1	1
	2 - Lionheart Way	0	0	1
	3 - Hamble Lane S	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N	0.82	17.69	4.4	C	924	924
2 - Lionheart Way	0.73	24.33	2.7	C	406	406
3 - Hamble Lane S	0.53	3.16	1.1	A	1259	1259

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	924	231	239	1127	0.820	907	1115	0.0	4.1	15.414	C
2 - Lionheart Way	406	101	789	563	0.722	396	358	0.0	2.4	20.642	C
3 - Hamble Lane S	1259	315	100	2398	0.525	1255	1085	0.0	1.1	3.138	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	924	231	240	1126	0.820	923	1121	4.1	4.3	17.539	C
2 - Lionheart Way	406	101	802	554	0.733	405	361	2.4	2.6	23.991	C
3 - Hamble Lane S	1259	315	102	2396	0.525	1259	1106	1.1	1.1	3.164	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	924	231	240	1126	0.820	924	1121	4.3	4.4	17.653	C
2 - Lionheart Way	406	101	803	553	0.734	406	361	2.6	2.7	24.255	C
3 - Hamble Lane S	1259	315	102	2396	0.525	1259	1107	1.1	1.1	3.165	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N	924	231	240	1126	0.820	924	1121	4.4	4.4	17.694	C
2 - Lionheart Way	406	101	803	553	0.734	406	361	2.7	2.7	24.330	C
3 - Hamble Lane S	1259	315	102	2396	0.525	1259	1107	1.1	1.1	3.165	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Hamble Lane - Tesco Calibrated AM Peak.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Arcady\2022
Report generation date: 18/11/2022 20:26:06

Summary of junction performance

	AM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
2 - Hamble Lane N Entry	4.0	14.35	0.80
3 - Tesco	1.0	13.36	0.50
4 - Hamble Lane S	1.1	3.37	0.52
	Design Year + Development		
2 - Hamble Lane N Entry	4.9	17.43	0.84
3 - Tesco	1.1	14.51	0.52
4 - Hamble Lane S	1.1	3.47	0.53

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	15	✓
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	15	✓

Analysis Set Details

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

Design Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tesco Roundabout	Standard Roundabout		1, 2, 3, 4	9.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.08	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Hamble Lane N Exit		
2	Hamble Lane N Entry		
3	Tesco		
4	Hamble Lane S		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Hamble Lane N Exit								✓
2 - Hamble Lane N Entry	5.10	6.80	27.7	20.4	27.3	44.0	✓	
3 - Tesco	4.10	4.90	3.5	19.6	35.4	68.6		
4 - Hamble Lane S	3.40	7.80	6.5	80.4	27.1	60.9		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Hamble Lane N Exit		
2 - Hamble Lane N Entry	0.683	1882
3 - Tesco	0.507	1196
4 - Hamble Lane S	0.566	1349

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Hamble Lane N Entry	Direct		-500
3 - Tesco	Direct		-200
4 - Hamble Lane S	Direct		1000

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N Exit					
2 - Hamble Lane N Entry		FLAT	✓	1018	100.000
3 - Tesco		FLAT	✓	267	100.000
4 - Hamble Lane S		FLAT	✓	1144	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	2	0	149	867
	3 - Tesco	155	0	4	108
	4 - Hamble Lane S	1034	0	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	0	0	1	3
	3 - Tesco	1	0	0	1
	4 - Hamble Lane S	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N Exit						
2 - Hamble Lane N Entry	0.80	14.35	4.0	B	1018	1018
3 - Tesco	0.50	13.36	1.0	B	267	267
4 - Hamble Lane S	0.52	3.37	1.1	A	1144	1144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1185				
2 - Hamble Lane N Entry	1018	255	114	1268	0.803	1003	0	0.0	3.8	12.909	B
3 - Tesco	267	67	856	543	0.492	263	260	0.0	0.9	12.706	B
4 - Hamble Lane S	1144	286	159	2214	0.517	1140	961	0.0	1.1	3.341	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1191				
2 - Hamble Lane N Entry	1018	255	114	1268	0.803	1017	0	3.8	3.9	14.274	B
3 - Tesco	267	67	869	537	0.498	267	263	0.9	1.0	13.335	B
4 - Hamble Lane S	1144	286	161	2213	0.517	1144	974	1.1	1.1	3.367	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1191				
2 - Hamble Lane N Entry	1018	255	114	1268	0.803	1018	0	3.9	4.0	14.331	B
3 - Tesco	267	67	869	536	0.498	267	263	1.0	1.0	13.356	B
4 - Hamble Lane S	1144	286	161	2213	0.517	1144	975	1.1	1.1	3.367	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1191				
2 - Hamble Lane N Entry	1018	255	114	1268	0.803	1018	0	4.0	4.0	14.350	B
3 - Tesco	267	67	869	536	0.498	267	263	1.0	1.0	13.361	B
4 - Hamble Lane S	1144	286	161	2213	0.517	1144	975	1.1	1.1	3.367	A

Design Year + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tesco Roundabout	Standard Roundabout		1, 2, 3, 4	10.60	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.60	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N Exit					
2 - Hamble Lane N Entry		FLAT	✓	1042	100.000
3 - Tesco		FLAT	✓	267	100.000
4 - Hamble Lane S		FLAT	✓	1156	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	2	0	149	891
	3 - Tesco	155	0	4	108
	4 - Hamble Lane S	1046	0	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	0	0	1	5
	3 - Tesco	1	0	0	1
	4 - Hamble Lane S	3	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N Exit						
2 - Hamble Lane N Entry	0.84	17.43	4.9	C	1042	1042
3 - Tesco	0.52	14.51	1.1	B	267	267
4 - Hamble Lane S	0.53	3.47	1.1	A	1156	1156

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1197				
2 - Hamble Lane N Entry	1042	261	114	1248	0.835	1024	0	0.0	4.6	15.042	C
3 - Tesco	267	67	877	523	0.510	263	260	0.0	1.0	13.633	B
4 - Hamble Lane S	1156	289	159	2195	0.527	1152	982	0.0	1.1	3.438	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1203				
2 - Hamble Lane N Entry	1042	261	114	1247	0.835	1041	0	4.6	4.8	17.260	C
3 - Tesco	267	67	892	515	0.518	267	263	1.0	1.1	14.470	B
4 - Hamble Lane S	1156	289	161	2193	0.527	1156	998	1.1	1.1	3.469	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1203				
2 - Hamble Lane N Entry	1042	261	114	1247	0.835	1042	0	4.8	4.9	17.386	C
3 - Tesco	267	67	893	515	0.518	267	263	1.1	1.1	14.501	B
4 - Hamble Lane S	1156	289	161	2193	0.527	1156	999	1.1	1.1	3.469	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			114				1203				
2 - Hamble Lane N Entry	1042	261	114	1247	0.835	1042	0	4.9	4.9	17.432	C
3 - Tesco	267	67	893	515	0.518	267	263	1.1	1.1	14.508	B
4 - Hamble Lane S	1156	289	161	2193	0.527	1156	999	1.1	1.1	3.470	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Hamble Lane - Tesco Calibrated PM Peak.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Arcady\2022
Report generation date: 22/11/2022 12:28:53

Summary of junction performance

	PM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
2 - Hamble Lane N Entry	12.1	51.50	0.94
3 - Tesco	3.0	24.12	0.76
4 - Hamble Lane S	1.0	3.27	0.50
	Design Year + Development		
2 - Hamble Lane N Entry	12.4	52.72	0.94
3 - Tesco	3.0	24.27	0.76
4 - Hamble Lane S	1.0	3.34	0.51

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	
Location	
Site number	
Date	01/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	15	✓
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	15	✓

Analysis Set Details

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

Design Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tesco Roundabout	Standard Roundabout		1, 2, 3, 4	24.91	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.91	C

Arms

Arms

Arm	Name	Description	No give-way line
1	Hamble Lane N Exit		
2	Hamble Lane N Entry		
3	Tesco		
4	Hamble Lane S		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Hamble Lane N Exit								✓
2 - Hamble Lane N Entry	5.10	6.80	27.7	20.4	27.3	44.0	✓	
3 - Tesco	4.10	4.90	3.5	19.6	35.4	68.6		
4 - Hamble Lane S	3.40	7.80	6.5	80.4	27.1	60.9		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Hamble Lane N Exit		
2 - Hamble Lane N Entry	0.683	1882
3 - Tesco	0.507	1196
4 - Hamble Lane S	0.566	1349

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Hamble Lane N Entry	Direct		-800
3 - Tesco	Direct		-220
4 - Hamble Lane S	Direct		1000

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N Exit					
2 - Hamble Lane N Entry		FLAT	✓	895	100.000
3 - Tesco		FLAT	✓	462	100.000
4 - Hamble Lane S		FLAT	✓	1095	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	6	0	188	701
	3 - Tesco	228	0	3	231
	4 - Hamble Lane S	940	0	155	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	17	0	1	2
	3 - Tesco	0	0	0	0
	4 - Hamble Lane S	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N Exit						
2 - Hamble Lane N Entry	0.94	51.50	12.1	F	895	895
3 - Tesco	0.76	24.12	3.0	C	462	462
4 - Hamble Lane S	0.50	3.27	1.0	A	1095	1095

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			157				1165				
2 - Hamble Lane N Entry	895	224	157	956	0.936	859	0	0.0	8.9	30.502	D
3 - Tesco	462	116	679	624	0.740	452	338	0.0	2.6	19.842	C
4 - Hamble Lane S	1095	274	232	2198	0.498	1091	899	0.0	1.0	3.238	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			158				1173				
2 - Hamble Lane N Entry	895	224	158	956	0.936	888	0	8.9	10.6	45.693	E
3 - Tesco	462	116	701	612	0.755	461	345	2.6	2.9	23.491	C
4 - Hamble Lane S	1095	274	236	2196	0.499	1095	926	1.0	1.0	3.270	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			158				1174				
2 - Hamble Lane N Entry	895	224	158	956	0.936	891	0	10.6	11.5	49.456	E
3 - Tesco	462	116	704	611	0.756	462	345	2.9	3.0	23.952	C
4 - Hamble Lane S	1095	274	237	2195	0.499	1095	929	1.0	1.0	3.270	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			158				1174				
2 - Hamble Lane N Entry	895	224	158	956	0.936	893	0	11.5	12.1	51.505	F
3 - Tesco	462	116	705	610	0.757	462	346	3.0	3.0	24.119	C
4 - Hamble Lane S	1095	274	237	2195	0.499	1095	930	1.0	1.0	3.270	A

Design Year + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tesco Roundabout	Standard Roundabout		1, 2, 3, 4	25.23	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	25.23	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - Hamble Lane N Exit					
2 - Hamble Lane N Entry		FLAT	✓	897	100.000
3 - Tesco		FLAT	✓	462	100.000
4 - Hamble Lane S		FLAT	✓	1118	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	6	0	188	703
	3 - Tesco	228	0	3	231
	4 - Hamble Lane S	963	0	155	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hamble Lane N Exit	2 - Hamble Lane N Entry	3 - Tesco	4 - Hamble Lane S
From	1 - Hamble Lane N Exit	0	0	0	0
	2 - Hamble Lane N Entry	17	0	1	2
	3 - Tesco	0	0	0	0
	4 - Hamble Lane S	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Hamble Lane N Exit						
2 - Hamble Lane N Entry	0.94	52.72	12.4	F	897	897
3 - Tesco	0.76	24.27	3.0	C	462	462
4 - Hamble Lane S	0.51	3.34	1.0	A	1118	1118

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			157				1188				
2 - Hamble Lane N Entry	897	224	157	956	0.938	861	0	0.0	9.0	30.837	D
3 - Tesco	462	116	680	623	0.741	451	338	0.0	2.6	19.921	C
4 - Hamble Lane S	1118	280	231	2198	0.509	1114	900	0.0	1.0	3.307	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			158				1196				
2 - Hamble Lane N Entry	897	224	158	956	0.938	890	0	9.0	10.9	46.522	E
3 - Tesco	462	116	703	611	0.756	461	344	2.6	2.9	23.624	C
4 - Hamble Lane S	1118	280	236	2196	0.509	1118	928	1.0	1.0	3.339	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			158				1197				
2 - Hamble Lane N Entry	897	224	158	956	0.938	893	0	10.9	11.8	50.520	F
3 - Tesco	462	116	706	610	0.757	462	345	2.9	3.0	24.099	C
4 - Hamble Lane S	1118	280	237	2195	0.509	1118	931	1.0	1.0	3.340	A

17:00 - 17:15

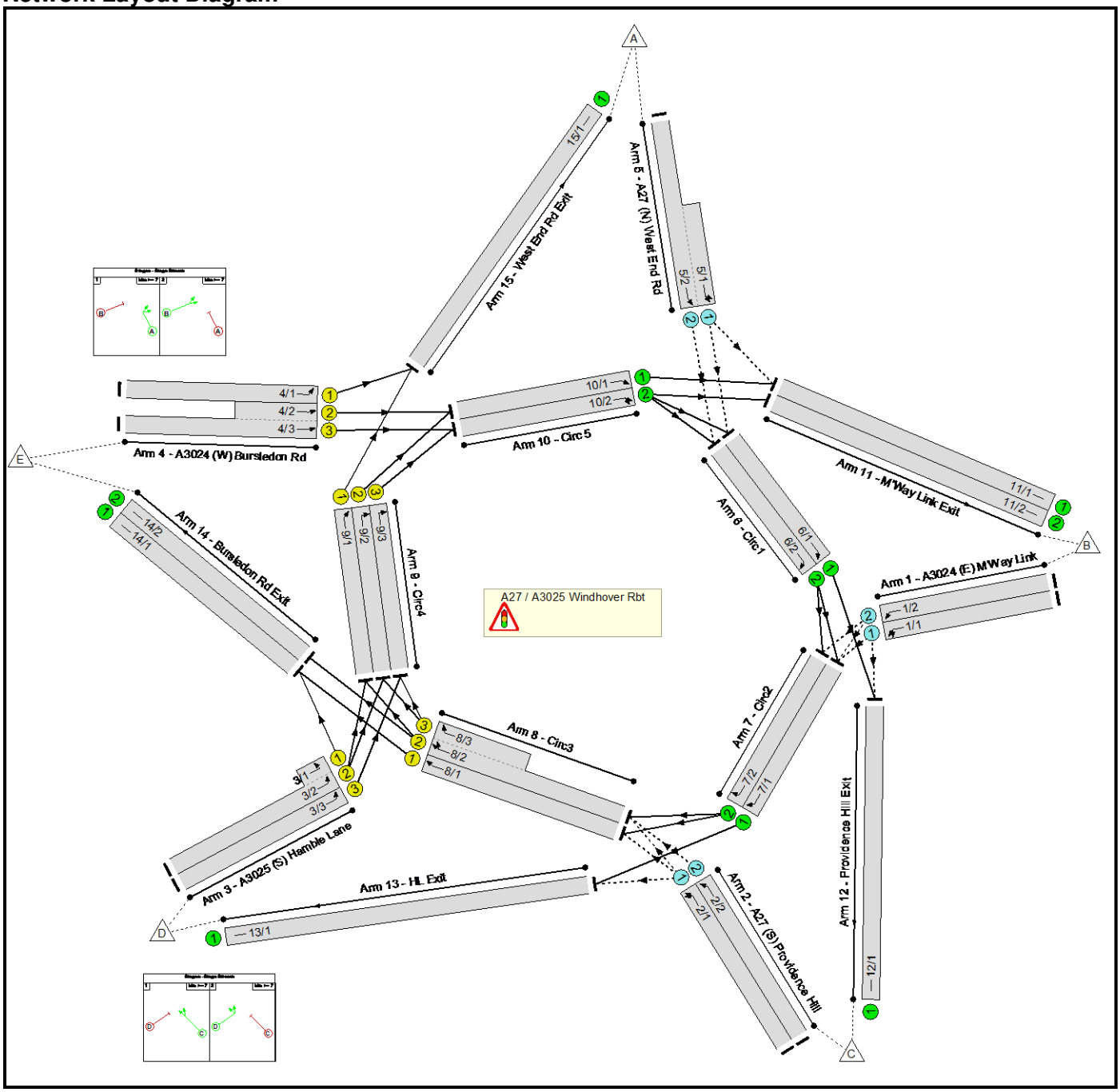
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Hamble Lane N Exit			158				1197				
2 - Hamble Lane N Entry	897	224	158	956	0.938	895	0	11.8	12.4	52.723	F
3 - Tesco	462	116	707	609	0.758	462	345	3.0	3.0	24.274	C
4 - Hamble Lane S	1118	280	237	2195	0.509	1118	932	1.0	1.0	3.340	A

Full Input Data And Results

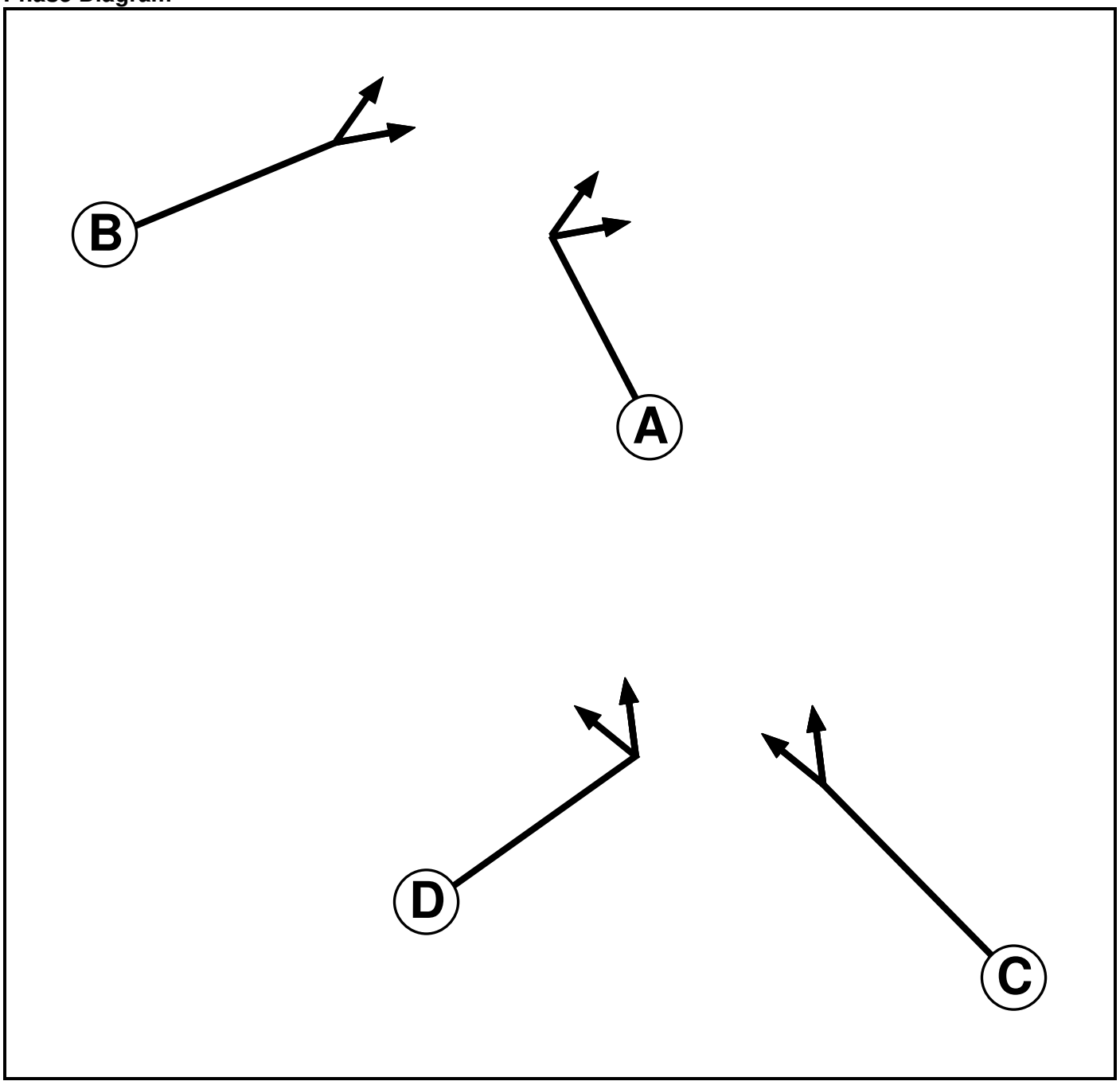
User and Project Details

Project:	
Title:	**A27/A3025 Windhover Roundabout**
Location:	
Additional detail:	
File name:	Windhover Roundabout AM.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Full Input Data And Results

Phase Intergreens Matrix

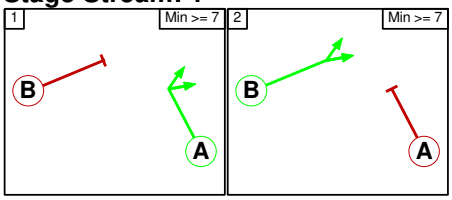
Terminating Phase	Starting Phase			
	A	B	C	D
A		6	-	-
B	6		-	-
C	-	-		6
D	-	-	6	

Phases in Stage

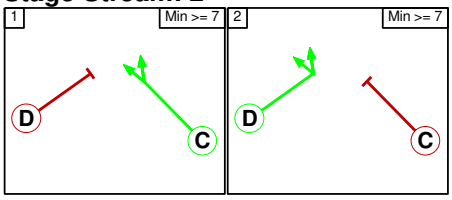
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage	
	1	2
1		6
2	6	

Full Input Data And Results

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		6
	2	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A27 / A3025 Windhover Rbt											
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 (A3024 (E) M'Way Link)	7/1 (Left)	1193	0	6/1	0.48	All	-	-	-	-	-
				6/2	0.48	All					
	12/1 (Left)	1193	0	6/1	0.48	All					
				6/2	0.48	All					
1/2 (A3024 (E) M'Way Link)	7/1 (Left)	1193	0	6/1	0.48	All	-	-	-	-	-
				6/2	0.48	All					
	7/2 (Left)	1193	0	6/1	0.48	All					
				6/2	0.48	All					
2/1 (A27 (S) Providence Hill)	8/1 (Ahead)	883	0	7/1	0.38	All	-	-	-	-	-
				7/2	0.38	All					
	8/2 (Ahead)	883	0	7/1	0.38	All					
				7/2	0.38	All					
	13/1 (Left)	883	0	7/1	0.38	All					
				7/2	0.38	All					
2/2 (A27 (S) Providence Hill)	8/2 (Ahead)	883	0	7/1	0.38	All	-	-	-	-	-
				7/2	0.38	All					
5/1 (A27 (N) West End Rd)	6/1 (Ahead)	1053	0	10/1	0.34	All	-	-	-	-	-
				10/2	0.34	All					
	11/1 (Left)	1053	0	10/1	0.34	All					
				10/2	0.34	All					
5/2 (A27 (N) West End Rd)	6/2 (Ahead)	1053	0	10/1	0.34	All	-	-	-	-	-
				10/2	0.34	All					

Full Input Data And Results

Lane Input Data

Junction: A27 / A3025 Windhover Rbt

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 (A3024 (E) M'Way Link)	O		2	3	60.0	User	1900	-	-	-	-	-
1/2 (A3024 (E) M'Way Link)	O		2	3	60.0	User	1900	-	-	-	-	-
2/1 (A27 (S) Providence Hill)	O		2	3	60.0	User	1900	-	-	-	-	-
2/2 (A27 (S) Providence Hill)	O		2	3	60.0	User	1900	-	-	-	-	-
3/1 (A3025 (S) Hamble Lane)	U	D	2	3	2.6	User	1800	-	-	-	-	-
3/2 (A3025 (S) Hamble Lane)	U	D	2	3	60.0	User	1800	-	-	-	-	-
3/3 (A3025 (S) Hamble Lane)	U	D	2	3	60.0	User	1800	-	-	-	-	-
4/1 (A3024 (W) Bursledon Rd)	U	B	2	3	60.0	User	1900	-	-	-	-	-
4/2 (A3024 (W) Bursledon Rd)	U	B	2	3	7.0	User	1800	-	-	-	-	-
4/3 (A3024 (W) Bursledon Rd)	U	B	2	3	60.0	User	1800	-	-	-	-	-
5/1 (A27 (N) West End Rd)	O		2	3	8.7	Inf	-	-	-	-	-	-
5/2 (A27 (N) West End Rd)	O		2	3	60.0	User	3800	-	-	-	-	-
6/1 (Circ1)	U		2	3	16.9	Inf	-	-	-	-	-	-
6/2 (Circ1)	U		2	3	16.9	Inf	-	-	-	-	-	-
7/1 (Circ2)	U		2	3	20.2	Inf	-	-	-	-	-	-
7/2 (Circ2)	U		2	3	20.2	Inf	-	-	-	-	-	-
8/1 (Circ3)	U	C	2	3	16.2	User	1800	-	-	-	-	-
8/2 (Circ3)	U	C	2	3	16.2	User	1800	-	-	-	-	-
8/3 (Circ3)	U	C	2	3	8.3	User	1800	-	-	-	-	-

9/1 (Circ4)	U	A	2	3	11.1	User	1900	-	-	-	-	-
9/2 (Circ4)	U	A	2	3	11.1	User	1900	-	-	-	-	-
9/3 (Circ4)	U	A	2	3	11.1	User	1900	-	-	-	-	-
10/1 (Circ 5)	U		2	3	26.3	Inf	-	-	-	-	-	-
10/2 (Circ 5)	U		2	3	26.3	Inf	-	-	-	-	-	-
11/1 (M'Way Link Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2 (M'Way Link Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (Providence Hill Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1 (HL Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1 (Bursledon Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
14/2 (Bursledon Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
15/1 (West End Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 AM Observed Baseline'	07:30	08:30	01:00	
2: '2022 PM Observed Baseline'	16:15	17:15	01:00	
3: '2022 AM Base + Dev'	07:30	08:30	01:00	
4: '2022 PM Base + Dev'	16:15	17:15	01:00	

Scenario 1: '1' (FG1: '2022 AM Observed Baseline', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	115	165	187	43	510
	B	3	0	130	728	521	1382
	C	136	150	0	74	197	557
	D	220	864	89	1	47	1221
	E	130	852	190	88	0	1260
	Tot.	489	1981	574	1078	808	4930

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 1
Junction: A27 / A3025 Windhover Rbt	
1/1	691
1/2	691
2/1	279
2/2	278
3/1 (short)	47
3/2 (with short)	646(In) 599(Out)
3/3	575
4/1	130
4/2 (short)	557
4/3 (with short)	1130(In) 573(Out)
5/1 (short)	280
5/2 (with short)	510(In) 230(Out)
6/1	444
6/2	319
7/1	1004
7/2	567
8/1	445
8/2 (with short)	605(In) 455(Out)
8/3 (short)	150
9/1	359
9/2	464
9/3	640
10/1	1021
10/2	1213
11/1	1136
11/2	845
12/1	574
13/1	1078
14/1	492
14/2	316
15/1	489

Full Input Data And Results

Lane Saturation Flows

Junction: A27 / A3025 Windhover Rbt								
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 (A3024 (E) M'Way Link Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A3024 (E) M'Way Link Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A27 (S) Providence Hill Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (A27 (S) Providence Hill Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A3025 (S) Hamble Lane Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A3025 (S) Hamble Lane Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A3025 (S) Hamble Lane Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A3024 (W) Bursledon Rd Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A3024 (W) Bursledon Rd Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A3024 (W) Bursledon Rd Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 (N) West End Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 (N) West End Rd Lane 2)	This lane uses a directly entered Saturation Flow						3800	3800
6/1 (Circ1 Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Circ1 Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Circ2 Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (Circ2 Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ3 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (Circ3 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
8/3 (Circ3 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
9/1 (Circ4 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
9/2 (Circ4 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
9/3 (Circ4 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
10/1 (Circ 5 Lane 1)	Infinite Saturation Flow						Inf	Inf

10/2 (Circ 5 Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (M'Way Link Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (M'Way Link Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (Providence Hill Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/1 (HL Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/1 (Bursledon Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/2 (Bursledon Rd Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
15/1 (West End Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 2: '3' (FG3: '2022 AM Base + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	115	165	187	43	510
	B	3	0	130	773	521	1427
	C	136	150	0	74	197	557
	D	220	894	89	1	47	1251
	E	130	852	190	88	0	1260
	Tot.	489	2011	574	1123	808	5005

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 3
Junction: A27 / A3025 Windhover Rbt	
1/1	712
1/2	711
2/1	279
2/2	278
3/1 (short)	47
3/2 (with short)	652(In) 605(Out)
3/3	587
4/1	130
4/2 (short)	565
4/3 (with short)	1130(In) 565(Out)
5/1 (short)	280
5/2 (with short)	510(In) 230(Out)
6/1	444
6/2	319
7/1	1045
7/2	567
8/1	444
8/2 (with short)	606(In) 456(Out)
8/3 (short)	150
9/1	359
9/2	476
9/3	646
10/1	1041
10/2	1211
11/1	1156
11/2	843
12/1	574
13/1	1119
14/1	491
14/2	317
15/1	489

Full Input Data And Results

Lane Saturation Flows

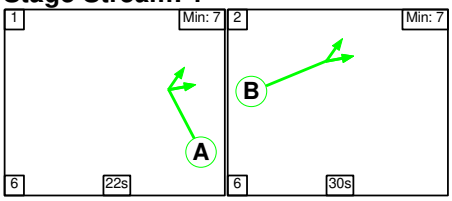
Junction: A27 / A3025 Windhover Rbt								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A3024 (E) M'Way Link Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A3024 (E) M'Way Link Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A27 (S) Providence Hill Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (A27 (S) Providence Hill Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A3025 (S) Hamble Lane Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A3025 (S) Hamble Lane Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A3025 (S) Hamble Lane Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A3024 (W) Bursledon Rd Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A3024 (W) Bursledon Rd Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A3024 (W) Bursledon Rd Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 (N) West End Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 (N) West End Rd Lane 2)	This lane uses a directly entered Saturation Flow						3800	3800
6/1 (Circ1 Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Circ1 Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Circ2 Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (Circ2 Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ3 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (Circ3 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
8/3 (Circ3 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
9/1 (Circ4 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
9/2 (Circ4 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
9/3 (Circ4 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
10/1 (Circ 5 Lane 1)	Infinite Saturation Flow						Inf	Inf

10/2 (Circ 5 Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (M'Way Link Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (M'Way Link Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (Providence Hill Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/1 (HL Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/1 (Bursledon Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/2 (Bursledon Rd Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
15/1 (West End Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf

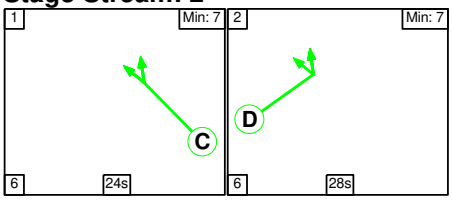
Scenario 1: '1' (FG1: '2022 AM Observed Baseline', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

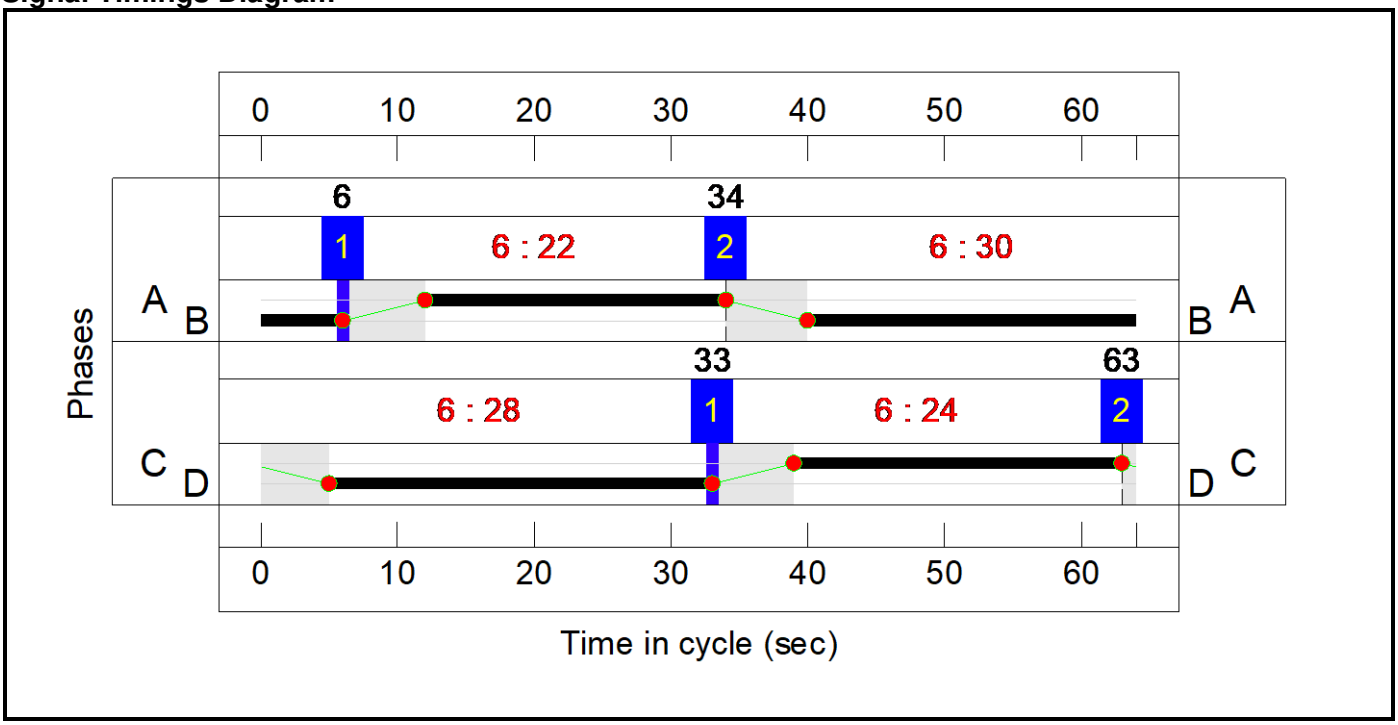
Stage	1	2
Duration	22	30
Change Point	6	34

Stage Stream: 2

Stage	1	2
Duration	24	28
Change Point	33	63

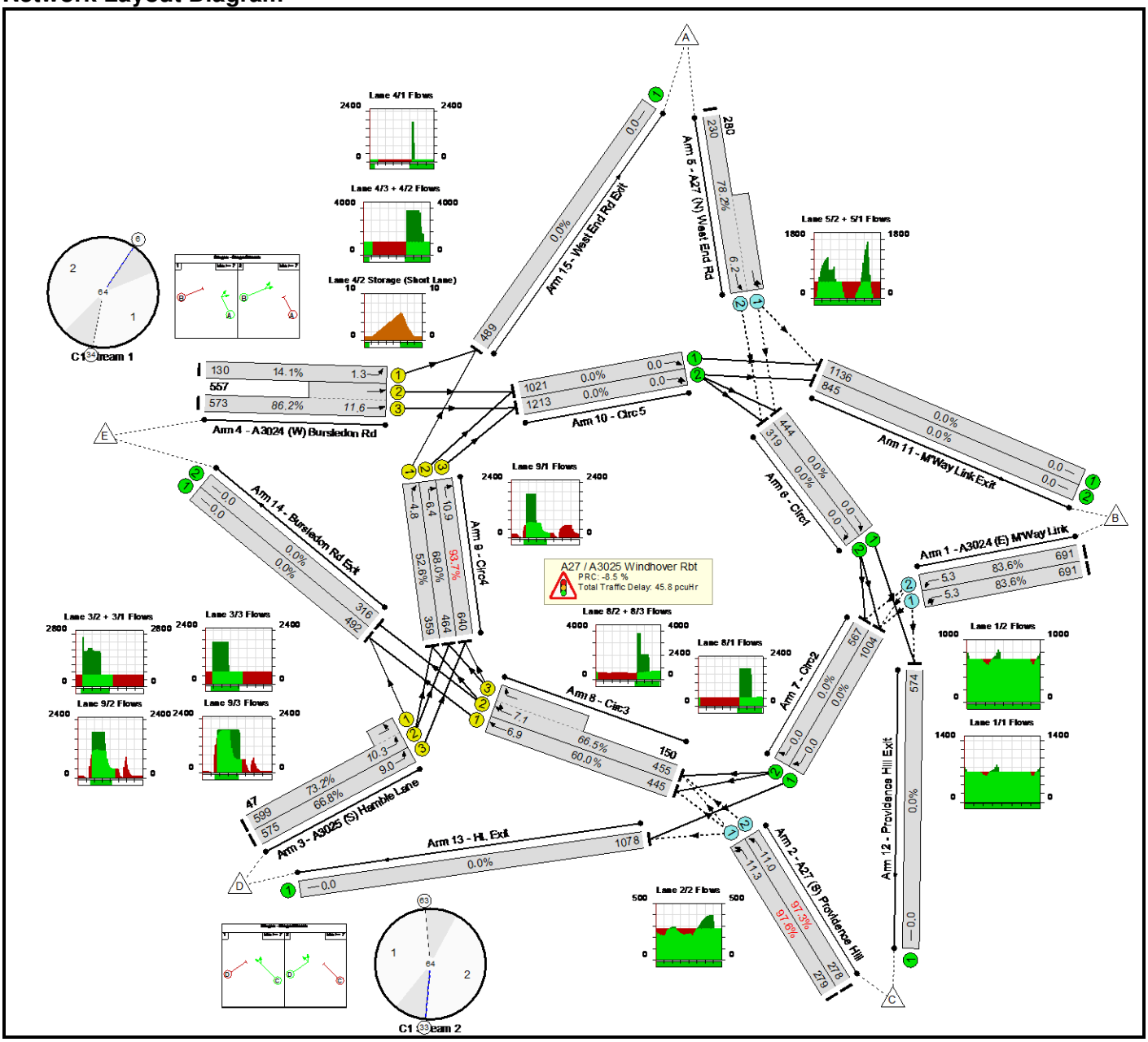
Full Input Data And Results

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: A27/A3025 Windhover Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.6%**
A27 / A3025 Windhover Rbt	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.6%**
1/1	A3024 (E) M'Way Link Left Left2	O	N/A	N/A	-		-	-	-	691	1900	826	83.6%
1/2	A3024 (E) M'Way Link Left	O	N/A	N/A	-		-	-	-	691	1900	826	83.6%
2/1	A27 (S) Providence Hill Ahead Left	O	N/A	N/A	-		-	-	-	279	1900	286	97.6%
2/2	A27 (S) Providence Hill Ahead	O	N/A	N/A	-		-	-	-	278	1900	286	97.3%
3/2+3/1	A3025 (S) Hamble Lane Left Left2	U	2	N/A	D		1	28	-	646	1900:1900	883	73.2%
3/3	A3025 (S) Hamble Lane Left	U	2	N/A	D		1	28	-	575	1900	861	66.8%
4/1	A3024 (W) Bursledon Rd Left	U	1	N/A	B		1	30	-	130	1900	920	14.1%
4/3+4/2	A3024 (W) Bursledon Rd Ahead	U	1	N/A	B		1	30	-	1130	1900:1900	1311	86.2%
5/2+5/1	A27 (N) West End Rd Ahead Left	O	N/A	N/A	-		-	-	-	510	3800: Inf	652	78.2%
6/1	Circ1 Ahead	U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
6/2	Circ1 Right	U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
7/1	Circ2 Right	U	N/A	N/A	-		-	-	-	1004	Inf	Inf	0.0%
7/2	Circ2 Right	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
8/1	Circ3 Ahead	U	2	N/A	C		1	24	-	445	1900	742	60.0%

Full Input Data And Results

8/2+8/3	Circ3 Right Ahead	U	2	N/A	C		1	24	-	605	1900:1900	910	66.5%
9/1	Circ4 Ahead	U	1	N/A	A		1	22	-	359	1900	683	52.6%
9/2	Circ4 Right	U	1	N/A	A		1	22	-	464	1900	683	68.0%
9/3	Circ4 Right	U	1	N/A	A		1	22	-	640	1900	683	93.7%
10/1	Circ 5 Ahead	U	N/A	N/A	-		-	-	-	1021	Inf	Inf	0.0%
10/2	Circ 5 Right Ahead	U	N/A	N/A	-		-	-	-	1213	Inf	Inf	0.0%
11/1	M'Way Link Exit	U	N/A	N/A	-		-	-	-	1136	Inf	Inf	0.0%
11/2	M'Way Link Exit	U	N/A	N/A	-		-	-	-	845	Inf	Inf	0.0%
12/1	Providence Hill Exit	U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
13/1	HL Exit	U	N/A	N/A	-		-	-	-	1078	Inf	Inf	0.0%
14/1	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
14/2	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%
15/1	West End Rd Exit	U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%

Full Input Data And Results

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: A27/A3025 Windhover Roundabout	**-**	**-**	**2959**	**0**	**0**	**18.5**	**27.3**	**0.0**	**45.8**	**-**	**-**	**-**	**-**
A27 / A3025 Windhover Rbt	**-**	**-**	**2959**	**0**	**0**	**18.5**	**27.3**	**0.0**	**45.8**	**-**	**-**	**-**	**-**
1/1	691	691	691	0	0	0.0	2.5	-	2.5	13.0	2.9	2.5	5.3
1/2	691	691	691	0	0	0.0	2.5	-	2.5	13.0	2.9	2.5	5.3
2/1	279	279	279	0	0	0.2	6.8	-	7.0	90.5	4.5	6.8	11.3
2/2	278	278	278	0	0	0.2	6.6	-	6.8	88.0	4.4	6.6	11.0
3/2+3/1	646	646	-	-	-	2.5	1.3	-	3.9	21.6	8.9	1.3	10.3
3/3	575	575	-	-	-	2.2	1.0	-	3.2	20.0	8.0	1.0	9.0
4/1	130	130	-	-	-	0.3	0.1	-	0.4	11.4	1.3	0.1	1.3
4/3+4/2	1130	1130	-	-	-	3.8	3.0	-	6.8	21.8	8.6	3.0	11.6
5/2+5/1	510	510	1020	0	0	1.0	1.7	-	2.7	19.3	4.4	1.7	6.2
6/1	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1004	1004	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	445	445	-	-	-	1.9	0.7	-	2.6	21.3	6.1	0.7	6.9
8/2+8/3	605	605	-	-	-	2.4	1.0	-	3.4	20.0	6.1	1.0	7.1
9/1	359	359	-	-	-	1.3	0.0	-	1.3	12.6	4.8	0.0	4.8
9/2	464	464	-	-	-	1.1	0.0	-	1.1	8.8	6.4	0.0	6.4
9/3	640	640	-	-	-	1.6	0.0	-	1.6	9.1	10.9	0.0	10.9
10/1	1021	1021	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	1213	1213	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1136	1136	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	845	845	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

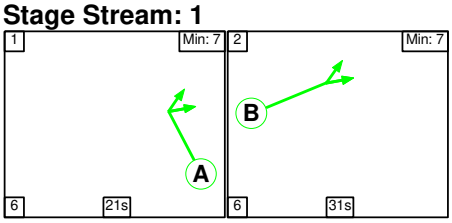
12/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1078	1078	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	-4.1	Total Delay for Signalled Lanes (pcuHr):	11.24	Cycle Time (s): 64
C1	Stream: 2 PRC for Signalled Lanes (%):	23.0	Total Delay for Signalled Lanes (pcuHr):	13.05	Cycle Time (s): 64
	PRC Over All Lanes (%):	-8.5	Total Delay Over All Lanes(pcuHr):	45.81	

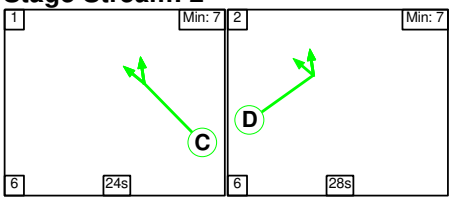
Full Input Data And Results
Scenario 2: '3' (FG3: '2022 AM Base + Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

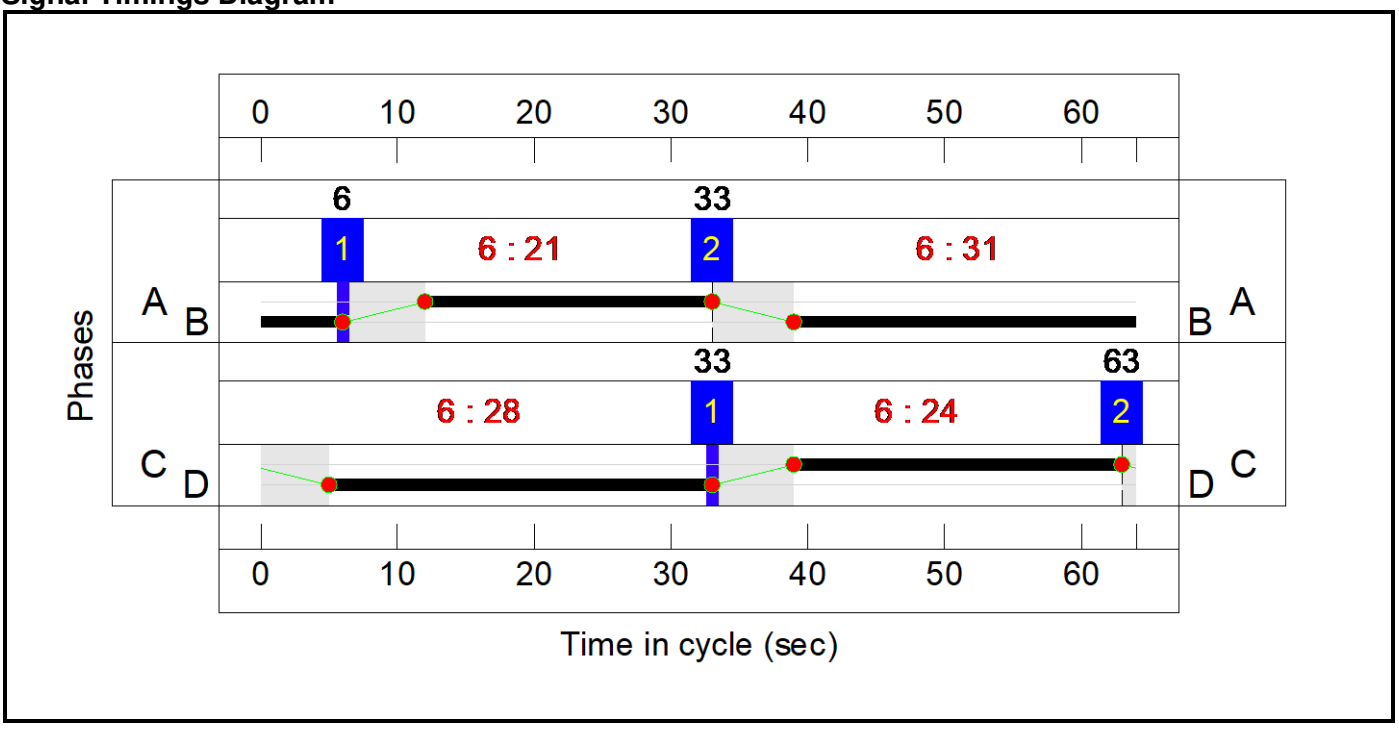
Stage Stream: 1

Stage	1	2
Duration	21	31
Change Point	6	33

Stage Stream: 2

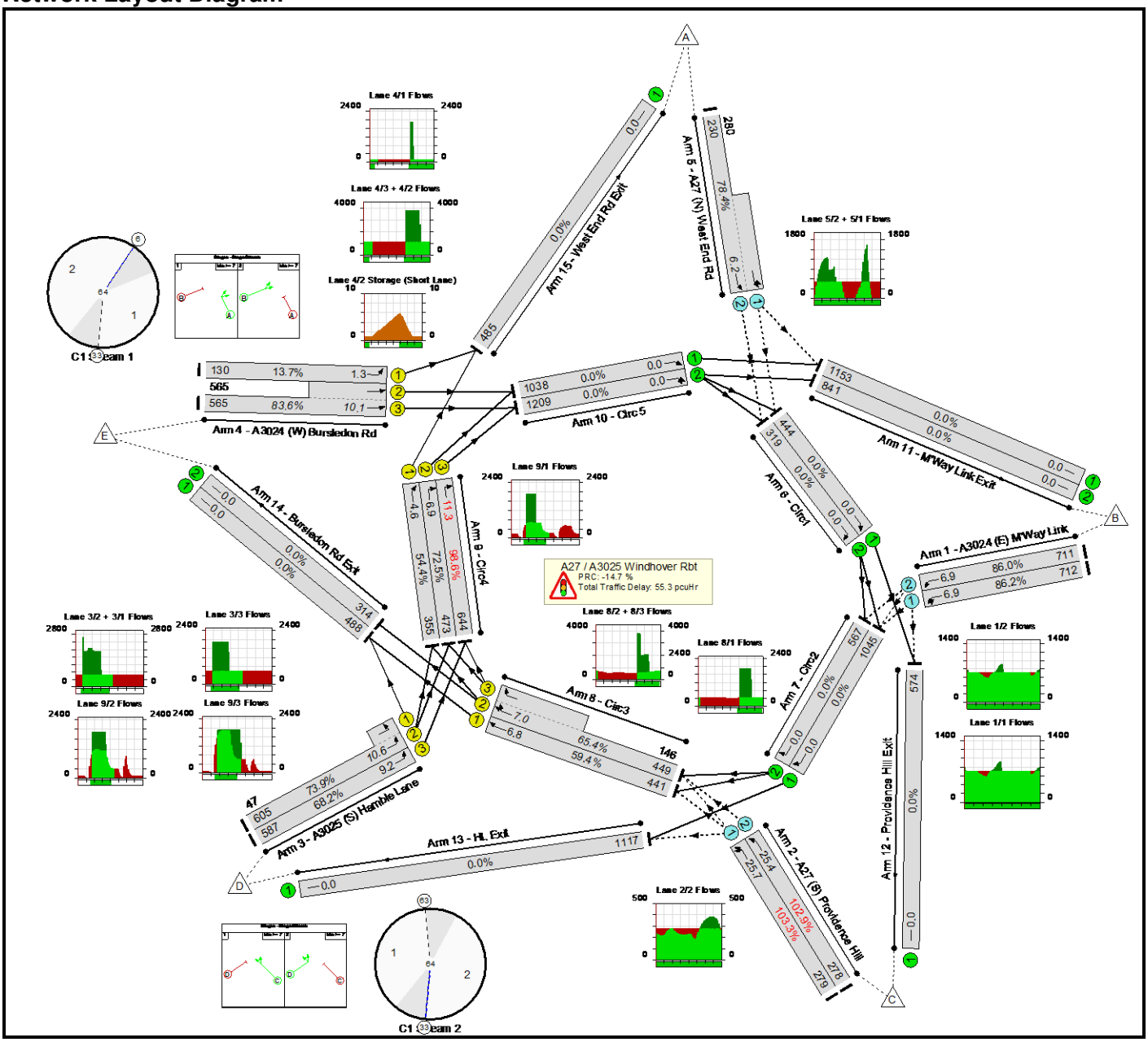
Stage	1	2
Duration	24	28
Change Point	33	63

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: A27/A3025 Windhover Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**103.3%**
A27 / A3025 Windhover Rbt	-	-	**N/A**	-	-		-	-	-	-	-	-	**103.3%**
1/1	A3024 (E) M'Way Link Left Left2	O	N/A	N/A	-		-	-	-	712	1900	826	86.2%
1/2	A3024 (E) M'Way Link Left	O	N/A	N/A	-		-	-	-	711	1900	826	86.0%
2/1	A27 (S) Providence Hill Ahead Left	O	N/A	N/A	-		-	-	-	279	1900	270	103.3%
2/2	A27 (S) Providence Hill Ahead	O	N/A	N/A	-		-	-	-	278	1900	270	102.9%
3/2+3/1	A3025 (S) Hamble Lane Left Left2	U	2	N/A	D		1	28	-	652	1900:1900	883	73.9%
3/3	A3025 (S) Hamble Lane Left	U	2	N/A	D		1	28	-	587	1900	861	68.2%
4/1	A3024 (W) Bursledon Rd Left	U	1	N/A	B		1	31	-	130	1900	950	13.7%
4/3+4/2	A3024 (W) Bursledon Rd Ahead	U	1	N/A	B		1	31	-	1130	1900:1900	1352	83.6%
5/2+5/1	A27 (N) West End Rd Ahead Left	O	N/A	N/A	-		-	-	-	510	3800: Inf	651	78.4%
6/1	Circ1 Ahead	U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
6/2	Circ1 Right	U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
7/1	Circ2 Right	U	N/A	N/A	-		-	-	-	1045	Inf	Inf	0.0%
7/2	Circ2 Right	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
8/1	Circ3 Ahead	U	2	N/A	C		1	24	-	444	1900	742	59.4%

Full Input Data And Results

8/2+8/3	Circ3 Right Ahead	U	2	N/A	C		1	24	-	606	1900:1900	910	65.4%
9/1	Circ4 Ahead	U	1	N/A	A		1	21	-	359	1900	653	54.4%
9/2	Circ4 Right	U	1	N/A	A		1	21	-	476	1900	653	72.5%
9/3	Circ4 Right	U	1	N/A	A		1	21	-	646	1900	653	98.6%
10/1	Circ 5 Ahead	U	N/A	N/A	-		-	-	-	1041	Inf	Inf	0.0%
10/2	Circ 5 Right Ahead	U	N/A	N/A	-		-	-	-	1211	Inf	Inf	0.0%
11/1	M'Way Link Exit	U	N/A	N/A	-		-	-	-	1156	Inf	Inf	0.0%
11/2	M'Way Link Exit	U	N/A	N/A	-		-	-	-	843	Inf	Inf	0.0%
12/1	Providence Hill Exit	U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
13/1	HL Exit	U	N/A	N/A	-		-	-	-	1119	Inf	Inf	0.0%
14/1	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	491	Inf	Inf	0.0%
14/2	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	317	Inf	Inf	0.0%
15/1	West End Rd Exit	U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%

Full Input Data And Results

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: A27/A3025 Windhover Roundabout	**-**	**-**	**2983**	**0**	**0**	**19.6**	**35.7**	**0.0**	**55.3**	**-**	**-**	**-**	**-**
A27 / A3025 Windhover Rbt	**-**	**-**	**2983**	**0**	**0**	**19.6**	**35.7**	**0.0**	**55.3**	**-**	**-**	**-**	**-**
1/1	712	712	712	0	0	0.1	3.0	-	3.0	15.2	4.0	3.0	6.9
1/2	711	711	711	0	0	0.1	2.9	-	3.0	15.1	4.0	2.9	6.9
2/1	279	270	270	0	0	0.6	10.8	-	11.4	147.7	14.9	10.8	25.7
2/2	278	270	270	0	0	0.6	10.5	-	11.1	143.4	14.8	10.5	25.4
3/2+3/1	652	652	-	-	-	2.6	1.4	-	4.0	21.8	9.2	1.4	10.6
3/3	587	587	-	-	-	2.3	1.1	-	3.3	20.4	8.2	1.1	9.2
4/1	130	130	-	-	-	0.3	0.1	-	0.4	10.8	1.2	0.1	1.3
4/3+4/2	1130	1130	-	-	-	3.6	2.5	-	6.1	19.3	7.6	2.5	10.1
5/2+5/1	510	510	1020	0	0	1.1	1.8	-	2.9	20.6	4.4	1.8	6.2
6/1	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1045	1045	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	441	441	-	-	-	1.9	0.7	-	2.6	21.2	6.0	0.7	6.8
8/2+8/3	595	595	-	-	-	2.4	0.9	-	3.3	20.1	6.0	0.9	7.0
9/1	355	355	-	-	-	1.3	0.0	-	1.3	12.9	4.6	0.0	4.6
9/2	473	473	-	-	-	1.3	0.0	-	1.3	9.6	6.9	0.0	6.9
9/3	644	644	-	-	-	1.7	0.0	-	1.7	9.6	11.3	0.0	11.3
10/1	1038	1038	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	1209	1209	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1153	1153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	841	841	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1117	1117	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	488	488	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	485	485	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

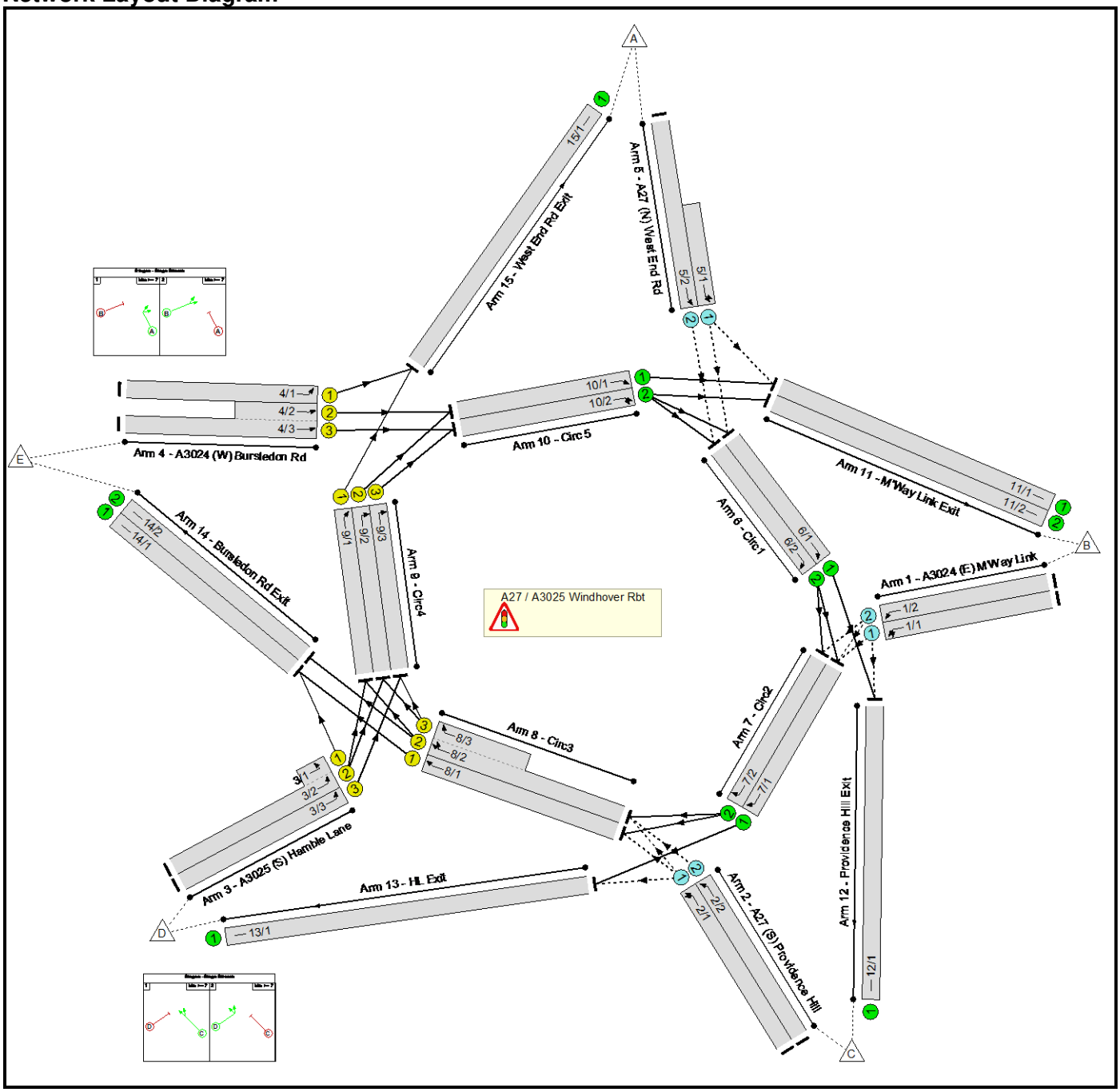
C1	Stream: 1 PRC for Signalled Lanes (%):	-9.6	Total Delay for Signalled Lanes (pcuHr):	10.71	Cycle Time (s): 64
C1	Stream: 2 PRC for Signalled Lanes (%):	21.8	Total Delay for Signalled Lanes (pcuHr):	13.20	Cycle Time (s): 64
	PRC Over All Lanes (%):	-14.7	Total Delay Over All Lanes(pcuHr):	55.33	

Full Input Data And Results

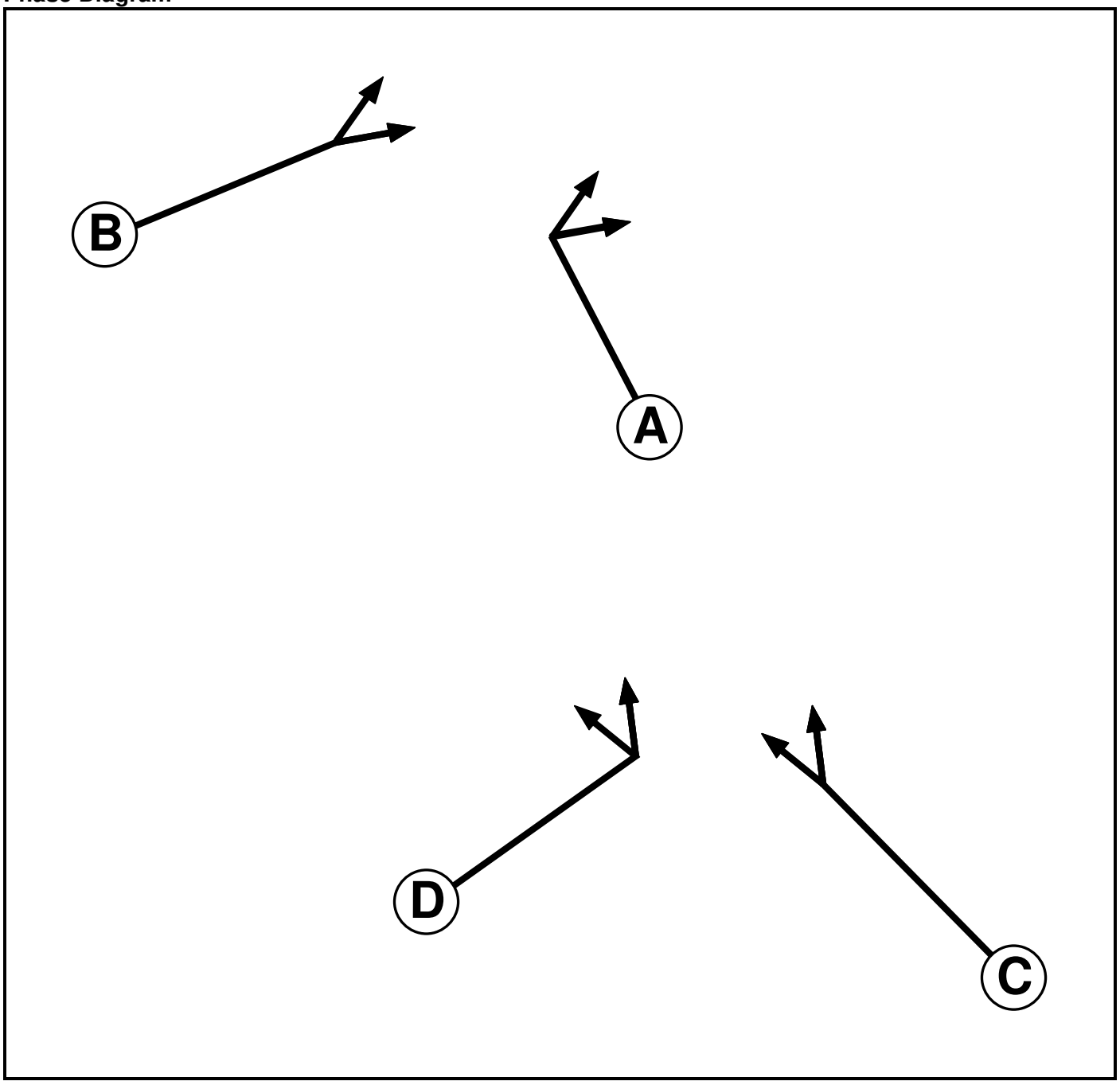
User and Project Details

Project:	
Title:	**A27/A3025 Windhover Roundabout**
Location:	
Additional detail:	
File name:	Windhover Roundabout PM.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Full Input Data And Results

Phase Intergreens Matrix

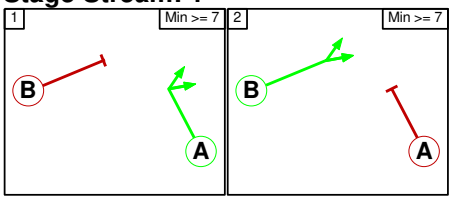
Terminating Phase	Starting Phase			
	A	B	C	D
A		6	-	-
B	6		-	-
C	-	-		6
D	-	-	6	

Phases in Stage

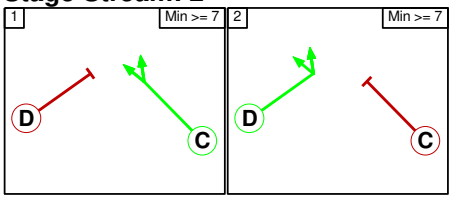
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage	
	1	2
1		6
2	6	

Full Input Data And Results

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		6
	2	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A27 / A3025 Windhover Rbt											
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 (A3024 (E) M'Way Link)	7/1 (Left)	1093	0	6/1	0.47	All	-	-	-	-	-
				6/2	0.47	All					
	12/1 (Left)	1093	0	6/1	0.47	All					
				6/2	0.47	All					
1/2 (A3024 (E) M'Way Link)	7/1 (Left)	1093	0	6/1	0.47	All	-	-	-	-	-
				6/2	0.47	All					
	7/2 (Left)	1093	0	6/1	0.47	All					
				6/2	0.47	All					
2/1 (A27 (S) Providence Hill)	8/1 (Ahead)	738	0	7/1	0.39	All	-	-	-	-	-
				7/2	0.39	All					
	8/2 (Ahead)	738	0	7/1	0.39	All					
				7/2	0.39	All					
	13/1 (Left)	738	0	7/1	0.39	All					
				7/2	0.39	All					
2/2 (A27 (S) Providence Hill)	8/2 (Ahead)	738	0	7/1	0.39	All	-	-	-	-	-
				7/2	0.39	All					
5/1 (A27 (N) West End Rd)	6/1 (Ahead)	1151	0	10/1	0.38	All	-	-	-	-	-
				10/2	0.38	All					
	11/1 (Left)	1151	0	10/1	0.38	All					
				10/2	0.38	All					
5/2 (A27 (N) West End Rd)	6/2 (Ahead)	1151	0	10/1	0.38	All	-	-	-	-	-
				10/2	0.38	All					

Full Input Data And Results

Lane Input Data

Junction: A27 / A3025 Windhover Rbt

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 (A3024 (E) M'Way Link)	O		2	3	60.0	User	1900	-	-	-	-	-
1/2 (A3024 (E) M'Way Link)	O		2	3	60.0	User	1900	-	-	-	-	-
2/1 (A27 (S) Providence Hill)	O		2	3	60.0	User	1900	-	-	-	-	-
2/2 (A27 (S) Providence Hill)	O		2	3	60.0	User	1900	-	-	-	-	-
3/1 (A3025 (S) Hamble Lane)	U	D	2	3	2.6	User	1800	-	-	-	-	-
3/2 (A3025 (S) Hamble Lane)	U	D	2	3	60.0	User	1800	-	-	-	-	-
3/3 (A3025 (S) Hamble Lane)	U	D	2	3	60.0	User	1800	-	-	-	-	-
4/1 (A3024 (W) Bursledon Rd)	U	B	2	3	60.0	User	1900	-	-	-	-	-
4/2 (A3024 (W) Bursledon Rd)	U	B	2	3	7.0	User	1800	-	-	-	-	-
4/3 (A3024 (W) Bursledon Rd)	U	B	2	3	60.0	User	1800	-	-	-	-	-
5/1 (A27 (N) West End Rd)	O		2	3	8.7	Inf	-	-	-	-	-	-
5/2 (A27 (N) West End Rd)	O		2	3	60.0	User	3800	-	-	-	-	-
6/1 (Circ1)	U		2	3	16.9	Inf	-	-	-	-	-	-
6/2 (Circ1)	U		2	3	16.9	Inf	-	-	-	-	-	-
7/1 (Circ2)	U		2	3	20.2	Inf	-	-	-	-	-	-
7/2 (Circ2)	U		2	3	20.2	Inf	-	-	-	-	-	-
8/1 (Circ3)	U	C	2	3	16.2	User	1800	-	-	-	-	-
8/2 (Circ3)	U	C	2	3	16.2	User	1800	-	-	-	-	-
8/3 (Circ3)	U	C	2	3	8.3	User	1800	-	-	-	-	-

9/1 (Circ4)	U	A	2	3	11.1	User	1900	-	-	-	-	-
9/2 (Circ4)	U	A	2	3	11.1	User	1900	-	-	-	-	-
9/3 (Circ4)	U	A	2	3	11.1	User	1900	-	-	-	-	-
10/1 (Circ 5)	U		2	3	26.3	Inf	-	-	-	-	-	-
10/2 (Circ 5)	U		2	3	26.3	Inf	-	-	-	-	-	-
11/1 (M'Way Link Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2 (M'Way Link Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (Providence Hill Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1 (HL Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1 (Bursledon Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
14/2 (Bursledon Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
15/1 (West End Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 AM Observed Baseline'	07:30	08:30	01:00	
2: '2022 PM Observed Baseline'	16:15	17:15	01:00	
3: '2022 AM Base + Dev'	07:30	08:30	01:00	
4: '2022 PM Base + Dev'	16:15	17:15	01:00	

Scenario 1: '2' (FG2: '2022 PM Observed Baseline', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	128	175	211	89	603
	B	15	1	80	567	512	1175
	C	87	96	0	63	91	337
	D	208	761	111	5	108	1193
	E	86	569	225	68	0	948
	Tot.	396	1555	591	914	800	4256

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2
Junction: A27 / A3025 Windhover Rbt	
1/1	588
1/2	587
2/1	168
2/2	169
3/1 (short)	108
3/2 (with short)	638(In) 530(Out)
3/3	555
4/1	86
4/2 (short)	431
4/3 (with short)	862(In) 431(Out)
5/1 (short)	303
5/2 (with short)	603(In) 300(Out)
6/1	511
6/2	373
7/1	851
7/2	617
8/1	389
8/2 (with short)	502(In) 405(Out)
8/3 (short)	97
9/1	310
9/2	384
9/3	590
10/1	815
10/2	1021
11/1	943
11/2	612
12/1	591
13/1	914
14/1	497
14/2	303
15/1	396

Full Input Data And Results

Lane Saturation Flows

Junction: A27 / A3025 Windhover Rbt								
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 (A3024 (E) M'Way Link Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A3024 (E) M'Way Link Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A27 (S) Providence Hill Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (A27 (S) Providence Hill Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A3025 (S) Hamble Lane Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A3025 (S) Hamble Lane Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A3025 (S) Hamble Lane Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A3024 (W) Bursledon Rd Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A3024 (W) Bursledon Rd Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A3024 (W) Bursledon Rd Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 (N) West End Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 (N) West End Rd Lane 2)	This lane uses a directly entered Saturation Flow						3800	3800
6/1 (Circ1 Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Circ1 Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Circ2 Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (Circ2 Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ3 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (Circ3 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
8/3 (Circ3 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
9/1 (Circ4 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
9/2 (Circ4 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
9/3 (Circ4 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
10/1 (Circ 5 Lane 1)	Infinite Saturation Flow						Inf	Inf

10/2 (Circ 5 Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (M'Way Link Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (M'Way Link Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (Providence Hill Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/1 (HL Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/1 (Bursledon Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/2 (Bursledon Rd Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
15/1 (West End Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 2: '4' (FG4: '2022 PM Base + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	128	175	211	89	603
	B	15	1	80	572	512	1180
	C	87	96	0	63	91	337
	D	208	789	111	5	108	1221
	E	86	569	225	68	0	948
	Tot.	396	1583	591	919	800	4289

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 4
Junction: A27 / A3025 Windhover Rbt	
1/1	588
1/2	587
2/1	170
2/2	167
3/1 (short)	108
3/2 (with short)	659(In) 551(Out)
3/3	554
4/1	86
4/2 (short)	431
4/3 (with short)	862(In) 431(Out)
5/1 (short)	303
5/2 (with short)	603(In) 300(Out)
6/1	511
6/2	373
7/1	851
7/2	617
8/1	385
8/2 (with short)	506(In) 409(Out)
8/3 (short)	97
9/1	310
9/2	393
9/3	601
10/1	824
10/2	1032
11/1	952
11/2	623
12/1	591
13/1	914
14/1	493
14/2	307
15/1	396

Full Input Data And Results

Lane Saturation Flows

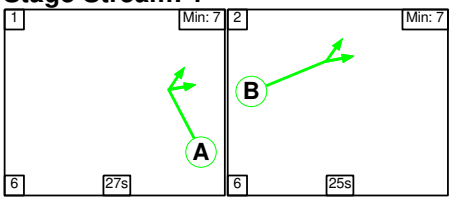
Junction: A27 / A3025 Windhover Rbt								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A3024 (E) M'Way Link Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A3024 (E) M'Way Link Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A27 (S) Providence Hill Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (A27 (S) Providence Hill Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A3025 (S) Hamble Lane Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A3025 (S) Hamble Lane Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A3025 (S) Hamble Lane Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A3024 (W) Bursledon Rd Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A3024 (W) Bursledon Rd Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A3024 (W) Bursledon Rd Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A27 (N) West End Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A27 (N) West End Rd Lane 2)	This lane uses a directly entered Saturation Flow						3800	3800
6/1 (Circ1 Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Circ1 Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Circ2 Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (Circ2 Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ3 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (Circ3 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
8/3 (Circ3 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
9/1 (Circ4 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
9/2 (Circ4 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
9/3 (Circ4 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
10/1 (Circ 5 Lane 1)	Infinite Saturation Flow						Inf	Inf

10/2 (Circ 5 Lane 2)	Infinite Saturation Flow	Inf	Inf
11/1 (M'Way Link Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/2 (M'Way Link Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
12/1 (Providence Hill Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/1 (HL Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/1 (Bursledon Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
14/2 (Bursledon Rd Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
15/1 (West End Rd Exit Lane 1)	Infinite Saturation Flow	Inf	Inf

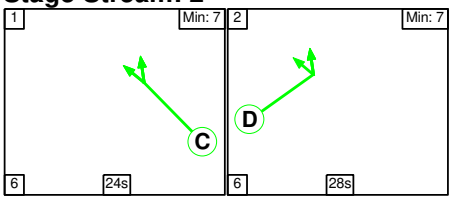
Scenario 1: '2' (FG2: '2022 PM Observed Baseline', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

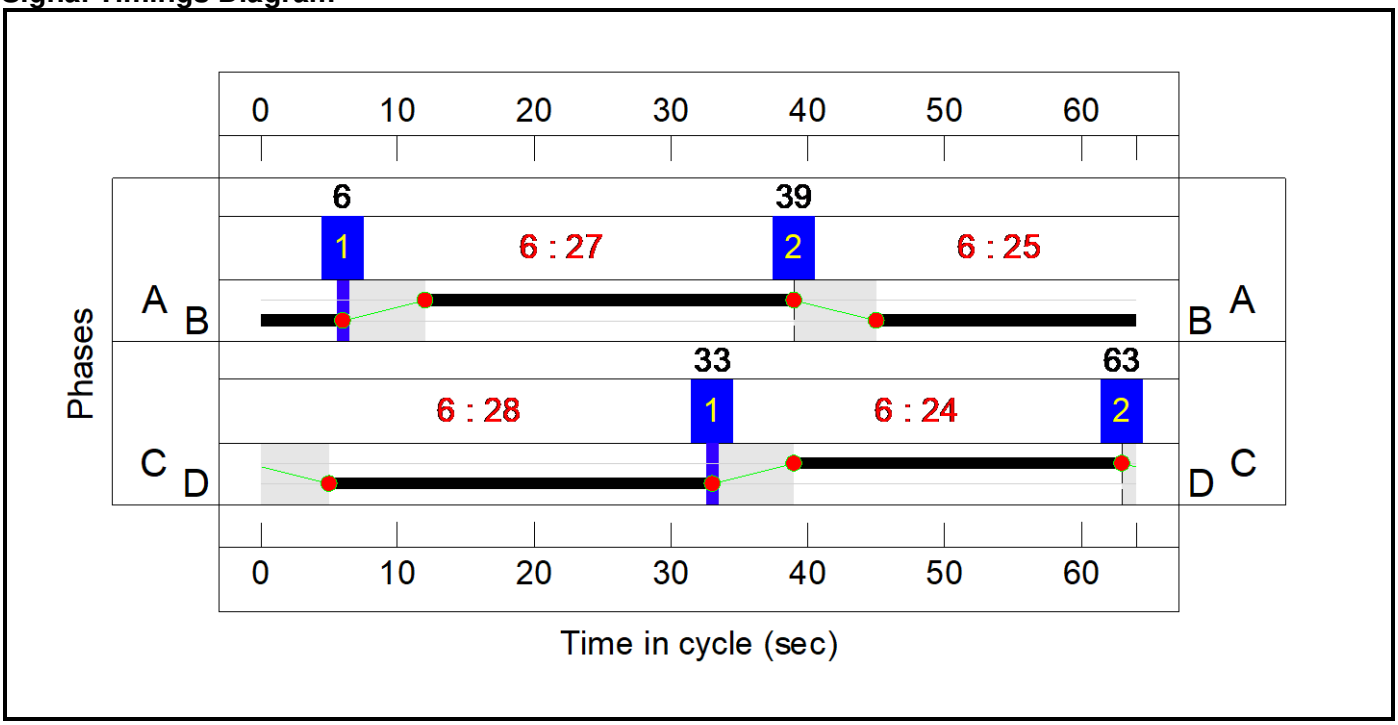
Stage	1	2
Duration	27	25
Change Point	6	39

Stage Stream: 2

Stage	1	2
Duration	24	28
Change Point	33	63

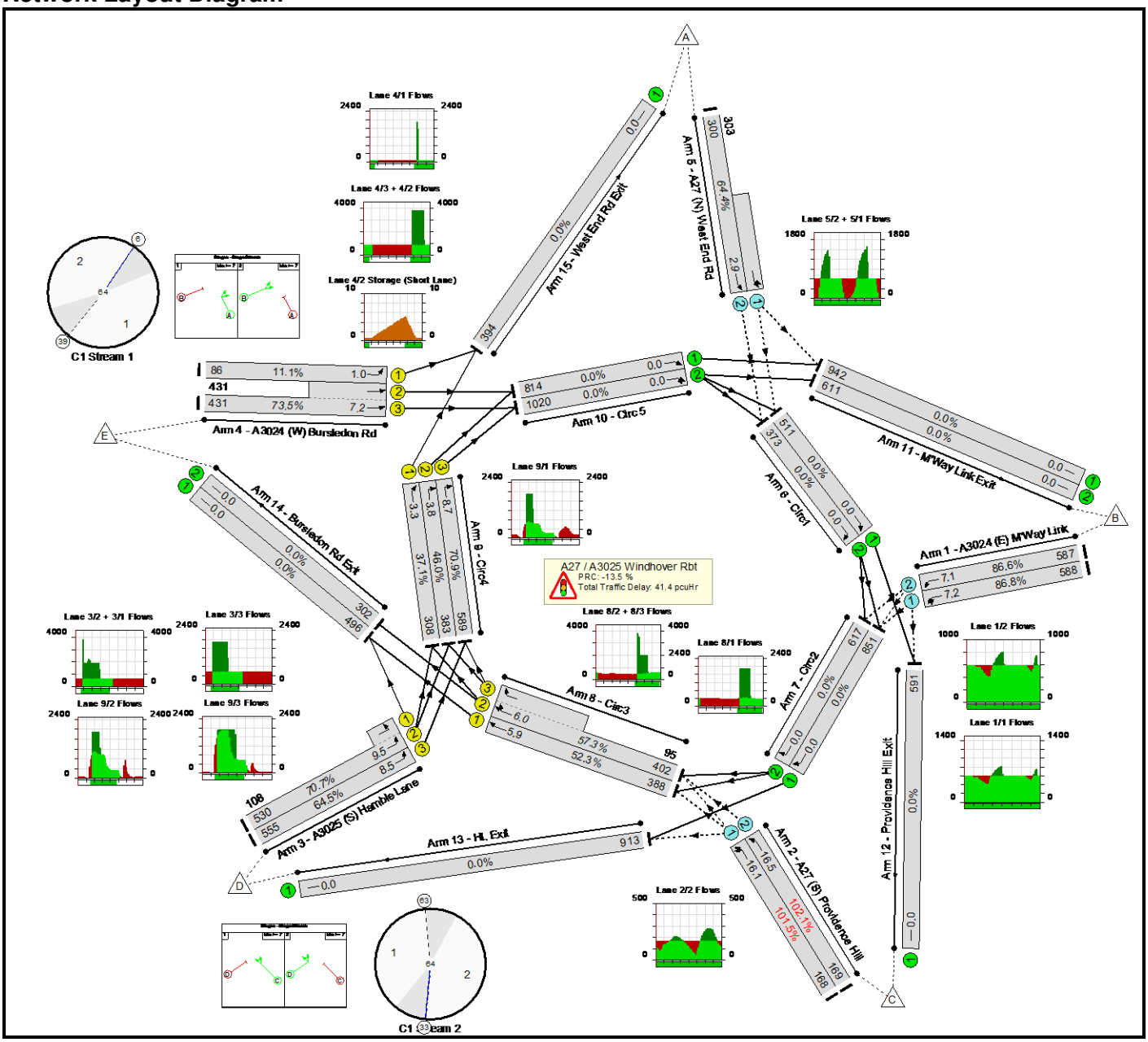
Full Input Data And Results

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: A27/A3025 Windhover Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.1%**
A27 / A3025 Windhover Rbt	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.1%**
1/1	A3024 (E) M'Way Link Left Left2	O	N/A	N/A	-		-	-	-	588	1900	677	86.8%
1/2	A3024 (E) M'Way Link Left	O	N/A	N/A	-		-	-	-	587	1900	677	86.6%
2/1	A27 (S) Providence Hill Ahead Left	O	N/A	N/A	-		-	-	-	168	1900	165	101.5%
2/2	A27 (S) Providence Hill Ahead	O	N/A	N/A	-		-	-	-	169	1900	165	102.1%
3/2+3/1	A3025 (S) Hamble Lane Left Left2	U	2	N/A	D		1	28	-	638	1900:1900	902	70.7%
3/3	A3025 (S) Hamble Lane Left	U	2	N/A	D		1	28	-	555	1900	861	64.5%
4/1	A3024 (W) Bursledon Rd Left	U	1	N/A	B		1	25	-	86	1900	772	11.1%
4/3+4/2	A3024 (W) Bursledon Rd Ahead	U	1	N/A	B		1	25	-	862	1900:1900	1173	73.5%
5/2+5/1	A27 (N) West End Rd Ahead Left	O	N/A	N/A	-		-	-	-	603	3800: Inf	936	64.4%
6/1	Circ1 Ahead	U	N/A	N/A	-		-	-	-	511	Inf	Inf	0.0%
6/2	Circ1 Right	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
7/1	Circ2 Right	U	N/A	N/A	-		-	-	-	851	Inf	Inf	0.0%
7/2	Circ2 Right	U	N/A	N/A	-		-	-	-	617	Inf	Inf	0.0%
8/1	Circ3 Ahead	U	2	N/A	C		1	24	-	389	1900	742	52.3%

Full Input Data And Results

8/2+8/3	Circ3 Right Ahead	U	2	N/A	C		1	24	-	502	1900:1900	868	57.3%
9/1	Circ4 Ahead	U	1	N/A	A		1	27	-	310	1900	831	37.1%
9/2	Circ4 Right	U	1	N/A	A		1	27	-	384	1900	831	46.0%
9/3	Circ4 Right	U	1	N/A	A		1	27	-	590	1900	831	70.9%
10/1	Circ 5 Ahead	U	N/A	N/A	-		-	-	-	815	Inf	Inf	0.0%
10/2	Circ 5 Right Ahead	U	N/A	N/A	-		-	-	-	1021	Inf	Inf	0.0%
11/1	M'Way Link Exit	U	N/A	N/A	-		-	-	-	943	Inf	Inf	0.0%
11/2	M'Way Link Exit	U	N/A	N/A	-		-	-	-	612	Inf	Inf	0.0%
12/1	Providence Hill Exit	U	N/A	N/A	-		-	-	-	591	Inf	Inf	0.0%
13/1	HL Exit	U	N/A	N/A	-		-	-	-	914	Inf	Inf	0.0%
14/1	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	497	Inf	Inf	0.0%
14/2	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
15/1	West End Rd Exit	U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%

Full Input Data And Results

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: A27/A3025 Windhover Roundabout	**-**	**-**	**2712**	**0**	**0**	**15.1**	**26.3**	**0.0**	**41.4**	**-**	**-**	**-**	**-**
A27 / A3025 Windhover Rbt	**-**	**-**	**2712**	**0**	**0**	**15.1**	**26.3**	**0.0**	**41.4**	**-**	**-**	**-**	**-**
1/1	588	588	588	0	0	0.1	3.1	-	3.1	19.3	4.1	3.1	7.2
1/2	587	587	587	0	0	0.1	3.0	-	3.1	19.1	4.1	3.0	7.1
2/1	168	165	165	0	0	0.2	7.1	-	7.4	158.2	9.0	7.1	16.1
2/2	169	165	165	0	0	0.3	7.4	-	7.7	164.5	9.0	7.4	16.5
3/2+3/1	638	638	-	-	-	2.4	1.2	-	3.6	20.2	8.3	1.2	9.5
3/3	555	555	-	-	-	2.1	0.9	-	3.0	19.4	7.6	0.9	8.5
4/1	86	86	-	-	-	0.3	0.1	-	0.3	14.5	0.9	0.1	1.0
4/3+4/2	862	862	-	-	-	3.5	1.4	-	4.9	20.3	5.9	1.4	7.2
5/2+5/1	603	603	1206	0	0	0.6	0.9	-	1.5	9.2	2.0	0.9	2.9
6/1	511	511	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	851	851	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	617	617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	388	388	-	-	-	1.6	0.5	-	2.2	20.1	5.3	0.5	5.9
8/2+8/3	497	497	-	-	-	1.9	0.7	-	2.6	18.9	5.3	0.7	6.0
9/1	308	308	-	-	-	0.8	0.0	-	0.8	8.9	3.3	0.0	3.3
9/2	383	383	-	-	-	0.6	0.0	-	0.6	5.2	3.8	0.0	3.8
9/3	589	589	-	-	-	0.6	0.0	-	0.6	4.0	8.7	0.0	8.7
10/1	814	814	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	1020	1020	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	942	942	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	611	611	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

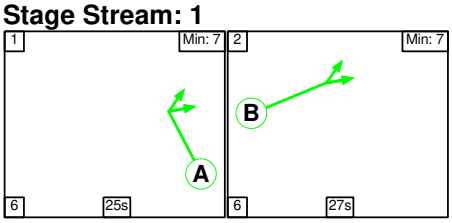
12/1	591	591	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	394	394	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	22.5	Total Delay for Signalled Lanes (pcuHr):	7.18	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	27.2	Total Delay for Signalled Lanes (pcuHr):	11.35	Cycle Time (s):	64
	PRC Over All Lanes (%):	-13.5	Total Delay Over All Lanes(pcuHr):	41.43		

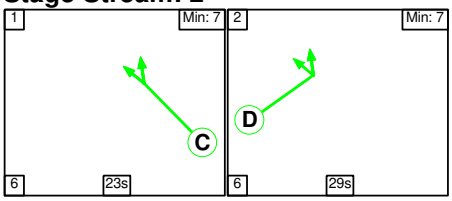
Full Input Data And Results
Scenario 2: '4' (FG4: '2022 PM Base + Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

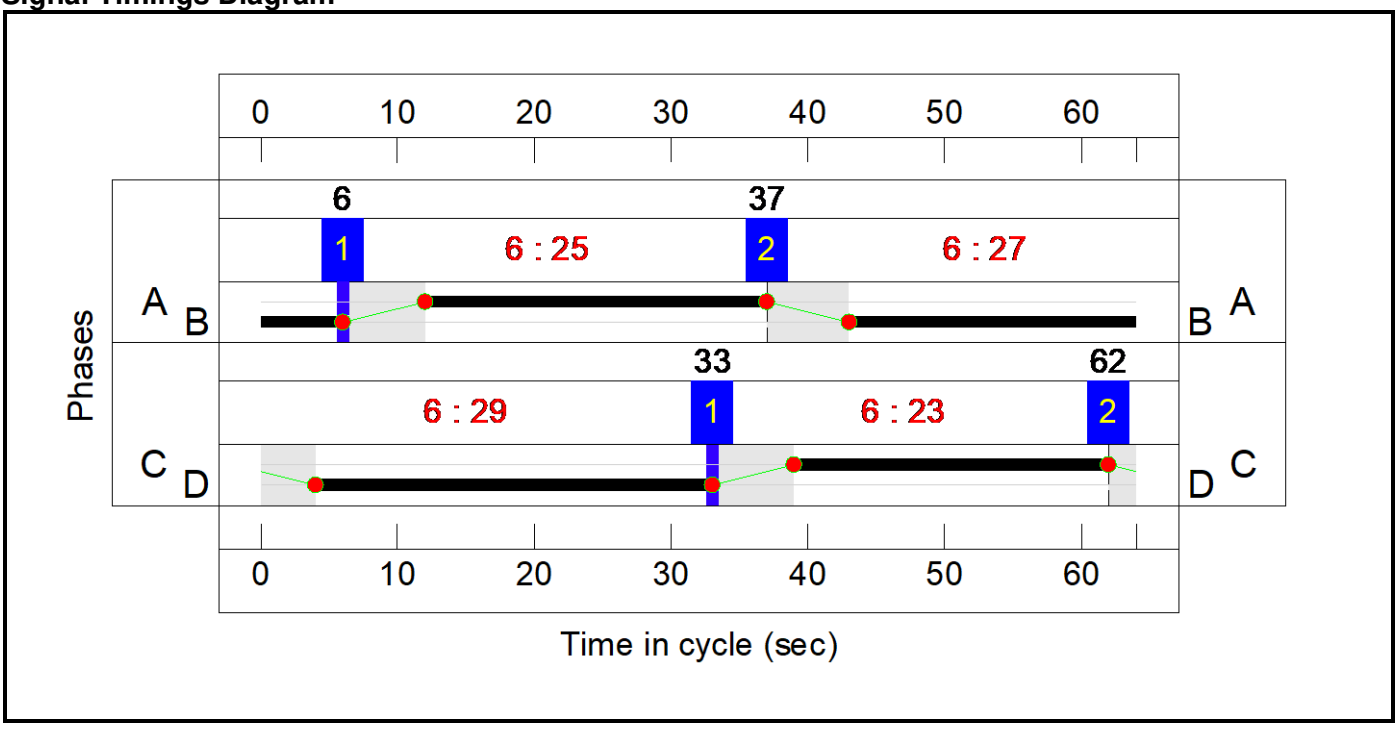
Stage Stream: 1

Stage	1	2
Duration	25	27
Change Point	6	37

Stage Stream: 2

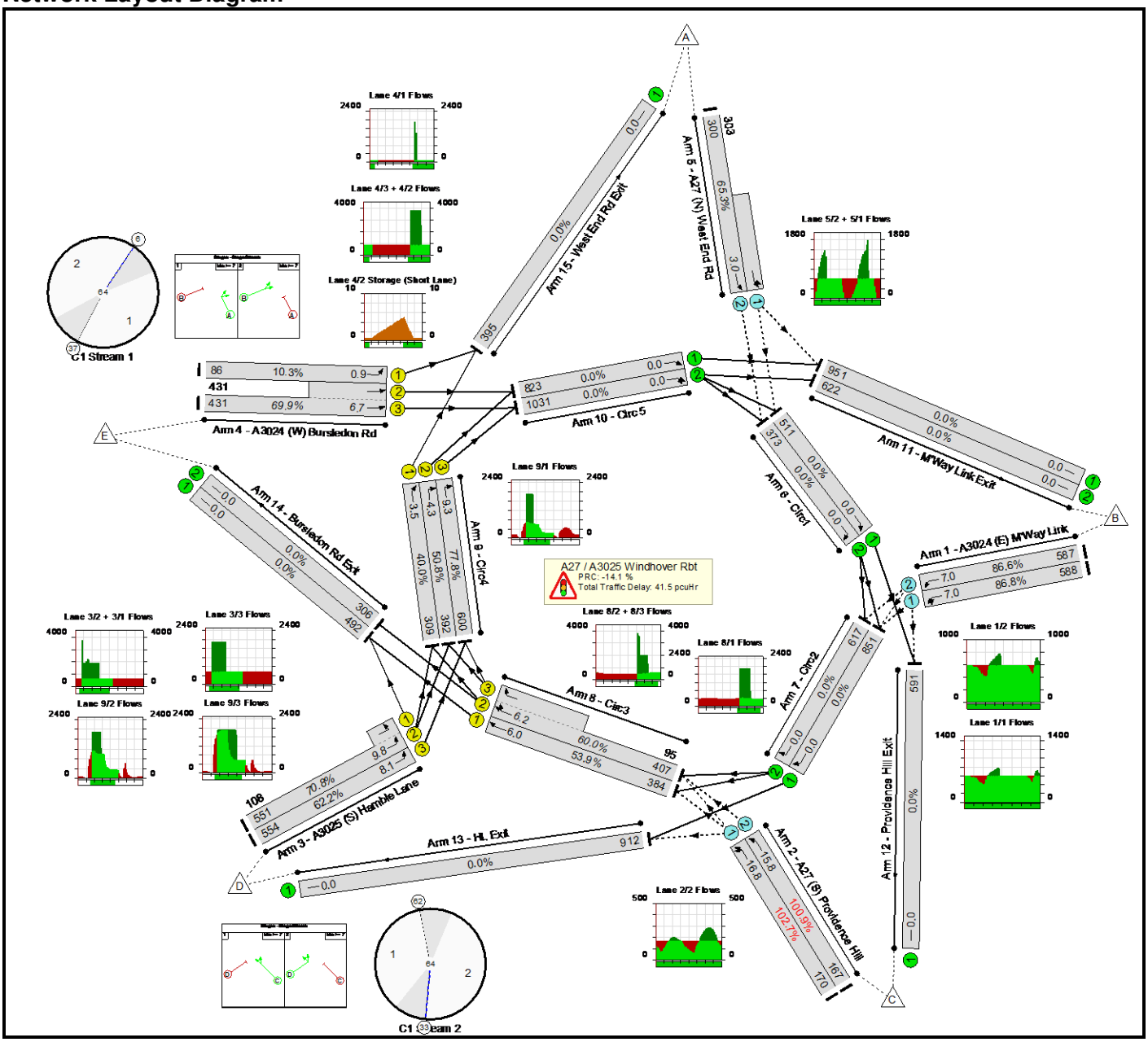
Stage	1	2
Duration	23	29
Change Point	33	62

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: A27/A3025 Windhover Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.7%**
A27 / A3025 Windhover Rbt	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.7%**
1/1	A3024 (E) M'Way Link Left Left2	O	N/A	N/A	-		-	-	-	588	1900	677	86.8%
1/2	A3024 (E) M'Way Link Left	O	N/A	N/A	-		-	-	-	587	1900	677	86.6%
2/1	A27 (S) Providence Hill Ahead Left	O	N/A	N/A	-		-	-	-	170	1900	165	102.7%
2/2	A27 (S) Providence Hill Ahead	O	N/A	N/A	-		-	-	-	167	1900	165	100.9%
3/2+3/1	A3025 (S) Hamble Lane Left Left2	U	2	N/A	D		1	29	-	659	1900:1900	930	70.8%
3/3	A3025 (S) Hamble Lane Left	U	2	N/A	D		1	29	-	554	1900	891	62.2%
4/1	A3024 (W) Bursledon Rd Left	U	1	N/A	B		1	27	-	86	1900	831	10.3%
4/3+4/2	A3024 (W) Bursledon Rd Ahead	U	1	N/A	B		1	27	-	862	1900:1900	1233	69.9%
5/2+5/1	A27 (N) West End Rd Ahead Left	O	N/A	N/A	-		-	-	-	603	3800: Inf	924	65.3%
6/1	Circ1 Ahead	U	N/A	N/A	-		-	-	-	511	Inf	Inf	0.0%
6/2	Circ1 Right	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
7/1	Circ2 Right	U	N/A	N/A	-		-	-	-	851	Inf	Inf	0.0%
7/2	Circ2 Right	U	N/A	N/A	-		-	-	-	617	Inf	Inf	0.0%
8/1	Circ3 Ahead	U	2	N/A	C		1	23	-	385	1900	713	53.9%

Full Input Data And Results

8/2+8/3	Circ3 Right Ahead	U	2	N/A	C		1	23	-	506	1900:1900	837	60.0%
9/1	Circ4 Ahead	U	1	N/A	A		1	25	-	310	1900	772	40.0%
9/2	Circ4 Right	U	1	N/A	A		1	25	-	393	1900	772	50.8%
9/3	Circ4 Right	U	1	N/A	A		1	25	-	601	1900	772	77.8%
10/1	Circ 5 Ahead	U	N/A	N/A	-		-	-	-	824	Inf	Inf	0.0%
10/2	Circ 5 Right Ahead	U	N/A	N/A	-		-	-	-	1032	Inf	Inf	0.0%
11/1	M'Way Link Exit	U	N/A	N/A	-		-	-	-	952	Inf	Inf	0.0%
11/2	M'Way Link Exit	U	N/A	N/A	-		-	-	-	623	Inf	Inf	0.0%
12/1	Providence Hill Exit	U	N/A	N/A	-		-	-	-	591	Inf	Inf	0.0%
13/1	HL Exit	U	N/A	N/A	-		-	-	-	914	Inf	Inf	0.0%
14/1	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%
14/2	Bursledon Rd Exit	U	N/A	N/A	-		-	-	-	307	Inf	Inf	0.0%
15/1	West End Rd Exit	U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%

Full Input Data And Results

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: A27/A3025 Windhover Roundabout	**-**	**-**	**2712**	**0**	**0**	**15.3**	**26.2**	**0.0**	**41.5**	**-**	**-**	**-**	**-**
A27 / A3025 Windhover Rbt	**-**	**-**	**2712**	**0**	**0**	**15.3**	**26.2**	**0.0**	**41.5**	**-**	**-**	**-**	**-**
1/1	588	588	588	0	0	0.1	3.1	-	3.1	19.3	3.9	3.1	7.0
1/2	587	587	587	0	0	0.1	3.0	-	3.1	19.1	3.9	3.0	7.0
2/1	170	165	165	0	0	0.4	7.7	-	8.1	171.9	9.1	7.7	16.8
2/2	167	165	165	0	0	0.2	6.9	-	7.1	152.8	8.9	6.9	15.8
3/2+3/1	659	659	-	-	-	2.4	1.2	-	3.6	19.5	8.6	1.2	9.8
3/3	554	554	-	-	-	2.0	0.8	-	2.8	18.1	7.2	0.8	8.1
4/1	86	86	-	-	-	0.3	0.1	-	0.3	13.1	0.9	0.1	0.9
4/3+4/2	862	862	-	-	-	3.1	1.2	-	4.3	17.9	5.5	1.2	6.7
5/2+5/1	603	603	1206	0	0	0.6	0.9	-	1.6	9.4	2.1	0.9	3.0
6/1	511	511	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	851	851	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	617	617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	384	384	-	-	-	1.7	0.6	-	2.3	21.2	5.4	0.6	6.0
8/2+8/3	503	503	-	-	-	2.1	0.7	-	2.8	20.2	5.5	0.7	6.2
9/1	309	309	-	-	-	0.8	0.0	-	0.8	9.7	3.5	0.0	3.5
9/2	392	392	-	-	-	0.6	0.0	-	0.6	5.2	4.3	0.0	4.3
9/3	600	600	-	-	-	1.0	0.0	-	1.0	6.1	9.3	0.0	9.3
10/1	823	823	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	1031	1031	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	951	951	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	622	622	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

12/1	591	591	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	912	912	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	395	395	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	15.8	Total Delay for Signalled Lanes (pcuHr):	7.03	Cycle Time (s): 64
C1	Stream: 2 PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	11.43	Cycle Time (s): 64
	PRC Over All Lanes (%):	-14.1	Total Delay Over All Lanes(pcuHr):	41.50	

Junctions 10

ARCADY 10 - Roundabout Module

Filename: M27 Calibated AM PEAK.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Arcady\2022
Report generation date: 18/11/2022 20:39:53

Summary of junction performance

	AM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
1 - M27 North	12.1	53.23	0.94
2 - Dodwell Lane	14.0	69.01	0.95
3 - M27 South	5.0	28.44	0.84
4 - Bert Bretts Way	11.7	23.38	0.93
	Design Year + Development		
1 - M27 North	16.2	70.24	0.96
2 - Dodwell Lane	16.8	81.91	0.97
3 - M27 South	6.2	35.28	0.87
4 - Bert Bretts Way	13.4	26.62	0.94

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	
Location	
Site number	
Date	10/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	15	✓
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	15	✓

Analysis Set Details

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

Design Year , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	38.72	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	38.72	E

Arms

Arms

Arm	Name	Description	No give-way line
1	M27 North		
2	Dodwell Lane		
3	M27 South		
4	Bert Bretts Way		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - M27 North	7.70	7.70	0.0	63.5	127.4	6.7		
2 - Dodwell Lane	4.50	7.10	22.8	46.0	127.4	1.3		
3 - M27 South	6.80	6.80	0.0	60.9	127.4	6.8		
4 - Bert Bretts Way	7.50	7.50	0.0	64.4	127.4	1.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M27 North	0.595	2600
2 - Dodwell Lane	0.540	2188
3 - M27 South	0.552	2294
4 - Bert Bretts Way	0.595	2574

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - M27 North	Direct		-960
2 - Dodwell Lane	Direct		-550
3 - M27 South	Direct		-800
4 - Bert Bretts Way	Direct		-145

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Design Year	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - M27 North		FLAT	✓	868	100.000
2 - Dodwell Lane		FLAT	✓	777	100.000
3 - M27 South		FLAT	✓	660	100.000
4 - Bert Bretts Way		FLAT	✓	1889	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	3	214	1	650
	2 - Dodwell Lane	426	1	218	132
	3 - M27 South	2	134	1	523
	4 - Bert Bretts Way	919	165	805	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	0	0	0	6
	2 - Dodwell Lane	0	0	0	1
	3 - M27 South	0	2	0	3
	4 - Bert Bretts Way	3	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M27 North	0.94	53.23	12.1	F	868	868
2 - Dodwell Lane	0.95	69.01	14.0	F	777	777
3 - M27 South	0.84	28.44	5.0	D	660	660
4 - Bert Bretts Way	0.93	23.38	11.7	C	1889	1889

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	868	217	1083	938	0.925	835	1314	0.0	8.1	29.247	D
2 - Dodwell Lane	777	194	1419	836	0.929	745	499	0.0	8.1	32.328	D
3 - M27 South	660	165	1164	807	0.818	644	1000	0.0	3.9	20.454	C
4 - Bert Bretts Way	1889	472	546	2047	0.923	1851	1263	0.0	9.5	16.127	C

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	868	217	1103	927	0.937	859	1341	8.1	10.3	45.431	E
2 - Dodwell Lane	777	194	1451	818	0.950	765	511	8.1	11.1	54.050	F
3 - M27 South	660	165	1197	789	0.836	657	1019	3.9	4.6	26.487	D
4 - Bert Bretts Way	1889	472	560	2039	0.927	1884	1295	9.5	10.8	21.833	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	868	217	1105	926	0.938	864	1345	10.3	11.4	50.488	F
2 - Dodwell Lane	777	194	1456	816	0.952	770	512	11.1	12.8	63.271	F
3 - M27 South	660	165	1204	785	0.840	659	1022	4.6	4.9	27.843	D
4 - Bert Bretts Way	1889	472	563	2037	0.927	1887	1300	10.8	11.4	22.886	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	868	217	1105	925	0.938	865	1347	11.4	12.1	53.230	F
2 - Dodwell Lane	777	194	1457	815	0.954	772	513	12.8	14.0	69.012	F
3 - M27 South	660	165	1206	784	0.842	659	1023	4.9	5.0	28.441	D
4 - Bert Bretts Way	1889	472	564	2036	0.928	1888	1302	11.4	11.7	23.379	C

Design Year + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	47.13	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	47.13	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Design Year + Development	AM	FLAT	07:30	08:30	60	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 (Veh/hr)	Scaling Factor (%)
1 - M27 North		FLAT	✓	880	100.000
2 - Dodwell Lane		FLAT	✓	777	100.000
3 - M27 South		FLAT	✓	672	100.000
4 - Bert Bretts Way		FLAT	✓	1901	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	3	214	1	662
	2 - Dodwell Lane	426	1	218	132
	3 - M27 South	2	134	1	535
	4 - Bert Bretts Way	925	165	811	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	0	0	0	7
	2 - Dodwell Lane	0	0	0	1
	3 - M27 South	0	2	0	4
	4 - Bert Bretts Way	4	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M27 North	0.96	70.24	16.2	F	880	880
2 - Dodwell Lane	0.97	81.91	16.8	F	777	777
3 - M27 South	0.87	35.28	6.2	E	672	672
4 - Bert Bretts Way	0.94	26.62	13.4	D	1901	1901

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	880	220	1087	929	0.947	842	1316	0.0	9.6	32.967	D
2 - Dodwell Lane	777	194	1431	826	0.940	742	497	0.0	8.8	34.464	D
3 - M27 South	672	168	1170	795	0.846	653	1003	0.0	4.6	23.159	C
4 - Bert Bretts Way	1901	475	544	2038	0.933	1859	1279	0.0	10.4	17.323	C

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	880	220	1108	917	0.960	867	1345	9.6	12.9	55.376	F
2 - Dodwell Lane	777	194	1465	807	0.963	762	509	8.8	12.5	60.337	F
3 - M27 South	672	168	1203	776	0.866	668	1024	4.6	5.6	31.734	D
4 - Bert Bretts Way	1901	475	558	2030	0.936	1894	1314	10.4	12.1	24.354	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	880	220	1110	916	0.961	872	1349	12.9	14.9	64.460	F
2 - Dodwell Lane	777	194	1471	804	0.967	767	511	12.5	14.9	73.061	F
3 - M27 South	672	168	1211	772	0.871	670	1027	5.6	6.0	34.097	D
4 - Bert Bretts Way	1901	475	561	2028	0.937	1898	1320	12.1	12.9	25.862	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	880	220	1111	915	0.961	874	1351	14.9	16.2	70.243	F
2 - Dodwell Lane	777	194	1473	802	0.968	770	512	14.9	16.8	81.911	F
3 - M27 South	672	168	1215	770	0.873	671	1028	6.0	6.2	35.280	E
4 - Bert Bretts Way	1901	475	563	2027	0.938	1899	1323	12.9	13.4	26.618	D

Junctions 10

ARCADY 10 - Roundabout Module

Filename: M27 Calibated PM Peak.j10
Path: T:\Projects\13000 Series\13040ITB Hamble Airfield\Tech\Junction Assessments\Arcady\2022
Report generation date: 22/11/2022 12:37:16

Summary of junction performance

	PM		
	Queue (Veh)	Delay (s)	RFC
	Design Year		
1 - M27 North	17.1	57.83	0.96
2 - Dodwell Lane	6.1	49.44	0.87
3 - M27 South	4.6	26.23	0.83
4 - Bert Bretts Way	1.0	2.33	0.49
	Design Year + Development		
1 - M27 North	19.0	63.82	0.97
2 - Dodwell Lane	6.7	53.94	0.88
3 - M27 South	4.6	26.43	0.83
4 - Bert Bretts Way	1.0	2.37	0.50

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	
Location	
Site number	
Date	10/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	15	✓
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	15	✓

Analysis Set Details

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

Design Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	29.00	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	29.00	D

Arms

Arms

Arm	Name	Description	No give-way line
1	M27 North		
2	Dodwell Lane		
3	M27 South		
4	Bert Bretts Way		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - M27 North	7.70	7.70	0.0	63.5	127.4	6.7		
2 - Dodwell Lane	4.50	7.10	22.8	46.0	127.4	1.3		
3 - M27 South	6.80	6.80	0.0	60.9	127.4	6.8		
4 - Bert Bretts Way	7.50	7.50	0.0	64.4	127.4	1.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M27 North	0.595	2600
2 - Dodwell Lane	0.540	2188
3 - M27 South	0.552	2294
4 - Bert Bretts Way	0.595	2574

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - M27 North	Direct		-790
2 - Dodwell Lane	Direct		-990
3 - M27 South	Direct		-1000
4 - Bert Bretts Way	Direct		750

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Design Year	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - M27 North		FLAT	✓	1127	100.000
2 - Dodwell Lane		FLAT	✓	471	100.000
3 - M27 South		FLAT	✓	649	100.000
4 - Bert Bretts Way		FLAT	✓	1503	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	4	568	0	555
	2 - Dodwell Lane	202	2	145	122
	3 - M27 South	3	166	2	478
	4 - Bert Bretts Way	647	226	630	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	0	0	0	3
	2 - Dodwell Lane	0	0	0	0
	3 - M27 South	0	1	0	2
	4 - Bert Bretts Way	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M27 North	0.96	57.83	17.1	F	1127	1127
2 - Dodwell Lane	0.87	49.44	6.1	E	471	471
3 - M27 South	0.83	26.23	4.6	D	649	649
4 - Bert Bretts Way	0.49	2.33	1.0	A	1503	1503

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1127	282	1020	1178	0.957	1082	846	0.0	11.3	29.797	D
2 - Dodwell Lane	471	118	1167	552	0.854	453	935	0.0	4.6	32.123	D
3 - M27 South	649	162	850	802	0.809	634	770	0.0	3.8	19.941	C
4 - Bert Bretts Way	1503	376	367	3053	0.492	1499	1117	0.0	1.0	2.311	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1127	282	1025	1174	0.960	1115	854	11.3	14.3	48.109	E
2 - Dodwell Lane	471	118	1185	542	0.870	467	955	4.6	5.5	44.932	E
3 - M27 South	649	162	877	787	0.824	647	776	3.8	4.3	25.022	D
4 - Bert Bretts Way	1503	376	377	3047	0.493	1503	1147	1.0	1.0	2.330	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1127	282	1026	1174	0.960	1120	855	14.3	16.0	54.151	F
2 - Dodwell Lane	471	118	1188	540	0.872	469	958	5.5	5.9	47.993	E
3 - M27 South	649	162	880	785	0.827	648	776	4.3	4.5	25.885	D
4 - Bert Bretts Way	1503	376	378	3047	0.493	1503	1151	1.0	1.0	2.331	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1127	282	1026	1174	0.960	1122	856	16.0	17.1	57.828	F
2 - Dodwell Lane	471	118	1189	540	0.873	470	960	5.9	6.1	49.443	E
3 - M27 South	649	162	882	784	0.828	649	777	4.5	4.6	26.230	D
4 - Bert Bretts Way	1503	376	378	3046	0.493	1503	1152	1.0	1.0	2.332	A

Design Year + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	31.23	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.23	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Design Year + Development	PM	FLAT	16:15	17:15	60	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 (Veh/hr)	Scaling Factor (%)
1 - M27 North		FLAT	✓	1128	100.000
2 - Dodwell Lane		FLAT	✓	471	100.000
3 - M27 South		FLAT	✓	650	100.000
4 - Bert Bretts Way		FLAT	✓	1527	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	4	568	0	556
	2 - Dodwell Lane	202	2	145	122
	3 - M27 South	3	166	2	479
	4 - Bert Bretts Way	659	226	642	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - M27 North	2 - Dodwell Lane	3 - M27 South	4 - Bert Bretts Way
From	1 - M27 North	0	0	0	3
	2 - Dodwell Lane	0	0	0	0
	3 - M27 South	0	1	0	2
	4 - Bert Bretts Way	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M27 North	0.97	63.82	19.0	F	1128	1128
2 - Dodwell Lane	0.88	53.94	6.7	F	471	471
3 - M27 South	0.83	26.43	4.6	D	650	650
4 - Bert Bretts Way	0.50	2.37	1.0	A	1527	1527

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1128	282	1032	1171	0.964	1080	858	0.0	11.9	31.128	D
2 - Dodwell Lane	471	118	1179	545	0.864	452	933	0.0	4.8	33.630	D
3 - M27 South	650	163	849	803	0.810	635	781	0.0	3.8	19.980	C
4 - Bert Bretts Way	1527	382	366	3053	0.500	1523	1117	0.0	1.0	2.347	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1128	282	1037	1167	0.966	1114	866	11.9	15.4	51.639	F
2 - Dodwell Lane	471	118	1197	535	0.880	467	954	4.8	5.9	48.191	E
3 - M27 South	650	163	876	787	0.825	648	788	3.8	4.3	25.143	D
4 - Bert Bretts Way	1527	382	377	3047	0.501	1527	1148	1.0	1.0	2.367	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1128	282	1038	1167	0.967	1120	867	15.4	17.5	59.064	F
2 - Dodwell Lane	471	118	1200	533	0.883	469	958	5.9	6.4	52.028	F
3 - M27 South	650	163	880	785	0.828	649	788	4.3	4.5	26.058	D
4 - Bert Bretts Way	1527	382	378	3046	0.501	1527	1152	1.0	1.0	2.368	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M27 North	1128	282	1038	1167	0.967	1122	867	17.5	19.0	63.817	F
2 - Dodwell Lane	471	118	1201	533	0.884	470	959	6.4	6.7	53.940	F
3 - M27 South	650	163	882	784	0.829	650	789	4.5	4.6	26.433	D
4 - Bert Bretts Way	1527	382	378	3046	0.501	1527	1153	1.0	1.0	2.369	A

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