

Do Minimum - OPERATION - Base + Committed 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	OPERATION - Base + Committed 2028	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	24	100.000
B		✓	154	100.000
C		✓	110	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	2	22
	B	66	0	88
	C	104	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	24
	B	3	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	5.44	0.1	A
B-A	0.11	6.54	0.1	A
C-A				
C-B	0.01	4.46	0.0	A
A-B				
A-C				

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	768	0.086	66	0.1	5.127	A
B-A	50	647	0.077	49	0.1	6.201	A
C-A	78			78			
C-B	5	816	0.006	4	0.0	4.435	A
A-B	2			2			
A-C	17			17			

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	79	764	0.104	79	0.1	5.257	A
B-A	59	644	0.092	59	0.1	6.343	A
C-A	93			93			
C-B	5	815	0.007	5	0.0	4.445	A
A-B	2			2			
A-C	20			20			

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	97	759	0.128	97	0.1	5.440	A
B-A	73	639	0.114	73	0.1	6.540	A
C-A	115			115			
C-B	7	814	0.008	7	0.0	4.458	A
A-B	2			2			
A-C	24			24			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	97	758	0.128	97	0.1	5.440	A
B-A	73	639	0.114	73	0.1	6.543	A
C-A	115			115			
C-B	7	814	0.008	7	0.0	4.458	A
A-B	2			2			
A-C	24			24			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	79	764	0.104	79	0.1	5.259	A
B-A	59	644	0.092	59	0.1	6.347	A
C-A	93			93			
C-B	5	815	0.007	5	0.0	4.446	A
A-B	2			2			
A-C	20			20			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	768	0.086	66	0.1	5.136	A
B-A	50	647	0.077	50	0.1	6.209	A
C-A	78			78			
C-B	5	816	0.006	5	0.0	4.435	A
A-B	2			2			
A-C	17			17			

Do Minimum - OPERATION - Base + Committed 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	OPERATION - Base + Committed 2028	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	80	100.000
B		✓	9	100.000
C		✓	148	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	37	43
	B	6	0	3
	C	21	127	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	8
	B	25	0	0
	C	69	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	5.16	0.0	A
B-A	0.01	6.93	0.0	A
C-A				
C-B	0.17	5.46	0.2	A
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	706	0.003	2	0.0	5.117	A
B-A	5	679	0.007	4	0.0	6.673	A
C-A	16			16			
C-B	96	806	0.119	95	0.1	5.062	A
A-B	28			28			
A-C	32			32			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	704	0.004	3	0.0	5.135	A
B-A	5	669	0.008	5	0.0	6.778	A
C-A	19			19			
C-B	114	803	0.142	114	0.2	5.225	A
A-B	33			33			
A-C	39			39			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	701	0.005	3	0.0	5.160	A
B-A	7	656	0.010	7	0.0	6.926	A
C-A	23			23			
C-B	140	799	0.175	140	0.2	5.457	A
A-B	41			41			
A-C	47			47			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	701	0.005	3	0.0	5.160	A
B-A	7	656	0.010	7	0.0	6.927	A
C-A	23			23			
C-B	140	799	0.175	140	0.2	5.459	A
A-B	41			41			
A-C	47			47			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	704	0.004	3	0.0	5.135	A
B-A	5	669	0.008	5	0.0	6.782	A
C-A	19			19			
C-B	114	803	0.142	114	0.2	5.228	A
A-B	33			33			
A-C	39			39			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	706	0.003	2	0.0	5.117	A
B-A	5	679	0.007	5	0.0	6.675	A
C-A	16			16			
C-B	96	806	0.119	96	0.1	5.071	A
A-B	28			28			
A-C	32			32			

Do Minimum - OPERATION - Base + Committed + Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	OPERATION - Base + Committed + Development 2028	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	90	100.000
B		✓	161	100.000
C		✓	185	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	2	88
	B	73	0	88
	C	179	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	0	67
	B	3	0	0
	C	25	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	5.67	0.2	A
B-A	0.13	6.92	0.2	A
C-A				
C-B	0.01	4.56	0.0	A
A-B				
A-C				

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	747	0.089	66	0.1	5.280	A
B-A	55	633	0.087	55	0.1	6.401	A
C-A	135			135			
C-B	5	804	0.006	4	0.0	4.502	A
A-B	2			2			
A-C	66			66			

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	79	741	0.107	79	0.1	5.439	A
B-A	66	626	0.105	66	0.1	6.612	A
C-A	161			161			
C-B	5	801	0.007	5	0.0	4.525	A
A-B	2			2			
A-C	79			79			

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	97	732	0.132	97	0.2	5.665	A
B-A	80	616	0.130	80	0.2	6.914	A
C-A	197			197			
C-B	7	796	0.008	7	0.0	4.557	A
A-B	2			2			
A-C	97			97			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	97	732	0.132	97	0.2	5.668	A
B-A	80	616	0.130	80	0.2	6.917	A
C-A	197			197			
C-B	7	796	0.008	7	0.0	4.557	A
A-B	2			2			
A-C	97			97			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	79	741	0.107	79	0.1	5.442	A
B-A	66	626	0.105	66	0.1	6.615	A
C-A	161			161			
C-B	5	801	0.007	5	0.0	4.527	A
A-B	2			2			
A-C	79			79			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	747	0.089	66	0.1	5.289	A
B-A	55	634	0.087	55	0.1	6.409	A
C-A	135			135			
C-B	5	804	0.006	5	0.0	4.504	A
A-B	2			2			
A-C	66			66			

Do Minimum - OPERATION - Base + Committed +Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	OPERATION - Base + Committed +Development 2028	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	108	100.000
B		✓	9	100.000
C		✓	174	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	37	71
	B	6	0	3
	C	47	127	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	0	32
	B	25	0	0
	C	83	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	5.21	0.0	A
B-A	0.01	7.06	0.0	A
C-A				
C-B	0.18	5.52	0.2	A
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	701	0.003	2	0.0	5.149	A
B-A	5	670	0.007	4	0.0	6.758	A
C-A	35			35			
C-B	96	801	0.119	95	0.1	5.098	A
A-B	28			28			
A-C	53			53			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	698	0.004	3	0.0	5.174	A
B-A	5	659	0.008	5	0.0	6.883	A
C-A	42			42			
C-B	114	797	0.143	114	0.2	5.272	A
A-B	33			33			
A-C	64			64			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	694	0.005	3	0.0	5.209	A
B-A	7	644	0.010	7	0.0	7.062	A
C-A	52			52			
C-B	140	792	0.177	140	0.2	5.520	A
A-B	41			41			
A-C	78			78			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	694	0.005	3	0.0	5.209	A
B-A	7	644	0.010	7	0.0	7.062	A
C-A	52			52			
C-B	140	792	0.177	140	0.2	5.522	A
A-B	41			41			
A-C	78			78			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	698	0.004	3	0.0	5.175	A
B-A	5	659	0.008	5	0.0	6.884	A
C-A	42			42			
C-B	114	797	0.143	114	0.2	5.274	A
A-B	33			33			
A-C	64			64			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	701	0.003	2	0.0	5.150	A
B-A	5	670	0.007	5	0.0	6.763	A
C-A	35			35			
C-B	96	801	0.119	96	0.1	5.108	A
A-B	28			28			
A-C	53			53			

Do Minimum - OPERATION WITH LINK ROAD - Base + Committed + Development 2026, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	OPERATION WITH LINK ROAD - Base + Committed + Development 2026	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	654	100.000
B		✓	179	100.000
C		✓	412	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	2	652
	B	54	0	125
	C	410	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.22	7.44	0.3	A
B-A	0.14	10.22	0.2	B
C-A				
C-B	0.00	5.59	0.0	A
A-B				
A-C				

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	94	685	0.137	93	0.2	6.075	A
B-A	41	482	0.084	40	0.1	8.137	A
C-A	309			309			
C-B	2	701	0.002	1	0.0	5.143	A
A-B	2			2			
A-C	491			491			

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	112	659	0.171	112	0.2	6.584	A
B-A	49	453	0.107	48	0.1	8.904	A
C-A	369			369			
C-B	2	678	0.003	2	0.0	5.321	A
A-B	2			2			
A-C	586			586			

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	138	622	0.221	137	0.3	7.425	A
B-A	59	412	0.144	59	0.2	10.214	B
C-A	451			451			
C-B	2	646	0.003	2	0.0	5.588	A
A-B	2			2			
A-C	718			718			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	138	622	0.221	138	0.3	7.435	A
B-A	59	412	0.144	59	0.2	10.223	B
C-A	451			451			
C-B	2	646	0.003	2	0.0	5.588	A
A-B	2			2			
A-C	718			718			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	112	659	0.171	113	0.2	6.598	A
B-A	49	453	0.107	49	0.1	8.917	A
C-A	369			369			
C-B	2	678	0.003	2	0.0	5.321	A
A-B	2			2			
A-C	586			586			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	94	685	0.137	94	0.2	6.093	A
B-A	41	482	0.084	41	0.1	8.153	A
C-A	309			309			
C-B	2	701	0.002	2	0.0	5.145	A
A-B	2			2			
A-C	491			491			

Do Minimum - OPERATION WITH LINK ROAD - Base + Committed +Development 2026, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.08	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	OPERATION WITH LINK ROAD - Base + Committed +Development 2026	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	382	100.000
B		✓	7	100.000
C		✓	610	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	21	361
	B	4	0	3
	C	454	156	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	5.54	0.0	A
B-A	0.01	7.83	0.0	A
C-A				
C-B	0.24	6.58	0.3	A
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	682	0.003	2	0.0	5.292	A
B-A	3	539	0.006	3	0.0	6.710	A
C-A	342			342			
C-B	117	751	0.156	117	0.2	5.671	A
A-B	16			16			
A-C	272			272			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	670	0.004	3	0.0	5.392	A
B-A	4	508	0.007	4	0.0	7.140	A
C-A	408			408			
C-B	140	737	0.190	140	0.2	6.025	A
A-B	19			19			
A-C	325			325			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	653	0.005	3	0.0	5.536	A
B-A	4	464	0.009	4	0.0	7.831	A
C-A	500			500			
C-B	172	719	0.239	171	0.3	6.575	A
A-B	23			23			
A-C	397			397			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	653	0.005	3	0.0	5.537	A
B-A	4	464	0.009	4	0.0	7.833	A
C-A	500			500			
C-B	172	719	0.239	172	0.3	6.580	A
A-B	23			23			
A-C	397			397			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	670	0.004	3	0.0	5.395	A
B-A	4	508	0.007	4	0.0	7.142	A
C-A	408			408			
C-B	140	737	0.190	141	0.2	6.036	A
A-B	19			19			
A-C	325			325			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	682	0.003	2	0.0	5.296	A
B-A	3	539	0.006	3	0.0	6.715	A
C-A	342			342			
C-B	117	751	0.156	118	0.2	5.688	A
A-B	16			16			
A-C	272			272			

Junctions 9							
PICADY 9 - Priority Intersection Module							
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Filename: CONSTRUCTION - MARSH_HOBSON WAY.j9

Path: \\UKLDS2PFPSW001.na.aecomnet.com\LE_PROJECTS\Transport Projects\60580855 - Project

Koala\Modelling\PICADY\2.0_S Marsh Road_Hobson Way

Report generation date: 13/09/2018 15:10:28

- »Do Minimum - CONSTRUCTION - Base + Committed 2020, AM
- »Do Minimum - CONSTRUCTION - Base + Committed 2020, PM
- »Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2020, AM
- »Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2020, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Do Minimum - CONSTRUCTION - Base + Committed 2020								
Stream B-C	0.1	5.36	0.12	A	0.0	5.06	0.00	A
Stream B-A	0.1	6.46	0.10	A	0.0	6.96	0.01	A
Stream C-B	0.0	4.45	0.01	A	0.2	5.36	0.16	A
Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2020								
Stream B-C	0.1	5.54	0.12	A	0.0	5.22	0.00	A
Stream B-A	0.2	6.77	0.13	A	0.0	7.25	0.01	A
Stream C-B	0.0	4.46	0.01	A	0.2	5.56	0.17	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/08/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CLEASBYD
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	CONSTRUCTION - Base + Committed 2020	AM	ONE HOUR	06:45	08:15	15
D2	CONSTRUCTION - Base + Committed 2020	PM	ONE HOUR	15:45	17:15	15
D3	CONSTRUCTION - Base + Committed + Peak of Construction 2020	AM	ONE HOUR	06:45	08:15	15
D4	CONSTRUCTION - Base + Committed + Peak of Construction 2020	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Do Minimum	100.000

Do Minimum - CONSTRUCTION - Base + Committed 2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	11.50		✓	3.50	250.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	7.50	5.00	3.50	3.50		3.50	250	140

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	664	0.092	0.233	0.146	0.332
1	B-C	786	0.092	0.232	-	-
1	C-B	820	0.242	0.242	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	CONSTRUCTION - Base + Committed 2020	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	23	100.000
B		✓	142	100.000
C		✓	101	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	2	21
	B	61	0	81
	C	96	5	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	22
	B	3	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	5.36	0.1	A
B-A	0.10	6.46	0.1	A
C-A				
C-B	0.01	4.45	0.0	A
A-B				
A-C				

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	769	0.079	61	0.1	5.081	A
B-A	46	649	0.071	46	0.1	6.146	A
C-A	72			72			
C-B	4	816	0.005	4	0.0	4.430	A
A-B	2			2			
A-C	16			16			

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	73	765	0.095	73	0.1	5.199	A
B-A	55	646	0.085	55	0.1	6.275	A
C-A	86			86			
C-B	4	815	0.006	4	0.0	4.438	A
A-B	2			2			
A-C	19			19			

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	89	760	0.117	89	0.1	5.363	A
B-A	67	641	0.105	67	0.1	6.455	A
C-A	106			106			
C-B	6	814	0.007	6	0.0	4.450	A
A-B	2			2			
A-C	23			23			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	89	760	0.117	89	0.1	5.364	A
B-A	67	641	0.105	67	0.1	6.455	A
C-A	106			106			
C-B	6	814	0.007	6	0.0	4.450	A
A-B	2			2			
A-C	23			23			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	73	765	0.095	73	0.1	5.203	A
B-A	55	646	0.085	55	0.1	6.279	A
C-A	86			86			
C-B	4	815	0.006	4	0.0	4.439	A
A-B	2			2			
A-C	19			19			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	769	0.079	61	0.1	5.090	A
B-A	46	649	0.071	46	0.1	6.154	A
C-A	72			72			
C-B	4	816	0.005	4	0.0	4.430	A
A-B	2			2			
A-C	16			16			

Do Minimum - CONSTRUCTION - Base + Committed 2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	CONSTRUCTION - Base + Committed 2020	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	74	100.000
B		✓	8	100.000
C		✓	137	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	34	40
	B	5	0	3
	C	20	117	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	0	8
	B	25	0	0
	C	71	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	5.06	0.0	A
B-A	0.01	6.96	0.0	A
C-A				
C-B	0.16	5.36	0.2	A
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	719	0.003	2	0.0	5.023	A
B-A	4	672	0.006	4	0.0	6.732	A
C-A	15			15			
C-B	88	807	0.109	88	0.1	5.001	A
A-B	26			26			
A-C	30			30			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	717	0.004	3	0.0	5.041	A
B-A	4	663	0.007	4	0.0	6.828	A
C-A	18			18			
C-B	105	804	0.131	105	0.1	5.148	A
A-B	31			31			
A-C	36			36			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	714	0.005	3	0.0	5.063	A
B-A	6	652	0.008	5	0.0	6.964	A
C-A	22			22			
C-B	129	801	0.161	129	0.2	5.355	A
A-B	37			37			
A-C	44			44			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	714	0.005	3	0.0	5.064	A
B-A	6	652	0.008	6	0.0	6.964	A
C-A	22			22			
C-B	129	801	0.161	129	0.2	5.357	A
A-B	37			37			
A-C	44			44			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	717	0.004	3	0.0	5.043	A
B-A	4	663	0.007	5	0.0	6.829	A
C-A	18			18			
C-B	105	804	0.131	105	0.2	5.152	A
A-B	31			31			
A-C	36			36			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	719	0.003	2	0.0	5.027	A
B-A	4	672	0.006	4	0.0	6.733	A
C-A	15			15			
C-B	88	807	0.109	88	0.1	5.010	A
A-B	26			26			
A-C	30			30			

Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	CONSTRUCTION - Base + Committed + Peak of Construction 2020	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	33	100.000
B		✓	155	100.000
C		✓	235	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	2	31
	B	74	0	81
	C	230	5	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	0	36
	B	3	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	5.54	0.1	A
B-A	0.13	6.77	0.2	A
C-A				
C-B	0.01	4.46	0.0	A
A-B				
A-C				

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	750	0.081	61	0.1	5.218	A
B-A	56	644	0.086	55	0.1	6.292	A
C-A	173			173			
C-B	4	814	0.005	4	0.0	4.440	A
A-B	2			2			
A-C	23			23			

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	73	746	0.098	73	0.1	5.350	A
B-A	67	638	0.104	66	0.1	6.489	A
C-A	207			207			
C-B	4	813	0.006	4	0.0	4.450	A
A-B	2			2			
A-C	28			28			

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	89	739	0.121	89	0.1	5.536	A
B-A	81	629	0.130	81	0.2	6.767	A
C-A	253			253			
C-B	6	812	0.007	6	0.0	4.465	A
A-B	2			2			
A-C	34			34			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	89	739	0.121	89	0.1	5.537	A
B-A	81	629	0.130	81	0.2	6.770	A
C-A	253			253			
C-B	6	812	0.007	6	0.0	4.465	A
A-B	2			2			
A-C	34			34			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	73	745	0.098	73	0.1	5.353	A
B-A	67	638	0.104	67	0.1	6.494	A
C-A	207			207			
C-B	4	813	0.006	4	0.0	4.452	A
A-B	2			2			
A-C	28			28			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	750	0.081	61	0.1	5.227	A
B-A	56	644	0.086	56	0.1	6.303	A
C-A	173			173			
C-B	4	814	0.005	4	0.0	4.440	A
A-B	2			2			
A-C	23			23			

Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	CONSTRUCTION - Base + Committed + Peak of Construction 2020	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	166	100.000
B		✓	8	100.000
C		✓	147	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	42	124
	B	5	0	3
	C	30	117	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	0	7
	B	25	0	0
	C	79	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	5.22	0.0	A
B-A	0.01	7.25	0.0	A
C-A				
C-B	0.17	5.56	0.2	A
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	705	0.003	2	0.0	5.124	A
B-A	4	654	0.006	4	0.0	6.915	A
C-A	23			23			
C-B	88	790	0.111	88	0.1	5.120	A
A-B	32			32			
A-C	93			93			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	700	0.004	3	0.0	5.162	A
B-A	4	642	0.007	4	0.0	7.054	A
C-A	27			27			
C-B	105	784	0.134	105	0.2	5.300	A
A-B	38			38			
A-C	111			111			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	694	0.005	3	0.0	5.215	A
B-A	6	626	0.009	5	0.0	7.254	A
C-A	33			33			
C-B	129	776	0.166	129	0.2	5.557	A
A-B	46			46			
A-C	137			137			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	693	0.005	3	0.0	5.215	A
B-A	6	626	0.009	6	0.0	7.254	A
C-A	33			33			
C-B	129	776	0.166	129	0.2	5.559	A
A-B	46			46			
A-C	137			137			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3	700	0.004	3	0.0	5.165	A
B-A	4	642	0.007	5	0.0	7.054	A
C-A	27			27			
C-B	105	784	0.134	105	0.2	5.302	A
A-B	38			38			
A-C	111			111			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2	704	0.003	2	0.0	5.128	A
B-A	4	654	0.006	4	0.0	6.916	A
C-A	23			23			
C-B	88	790	0.111	88	0.1	5.128	A
A-B	32			32			
A-C	93			93			

ANNEX 16: LAPORTE ROAD / HOBSON WAY / KILN LANE MODELLING OUTPUTS

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2018
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Filename: 3.0 OPERATION LAPORTE ROAD R'ABOUT.j9

Path: \\UKLDS2PFPSW001.na.aecomnet.com\LE_PROJECTS\Transport Projects\60580855 - Project

Koala\Modelling\4_R'abouts\3.0 _Laporte R'bout

Report generation date: 30/10/2018 10:17:39

»Do Minimum - OPERATION - BASE 2018, AM
»Do Minimum - OPERATION - BASE 2018, PM
»Do Minimum - OPERATION - BASE + COMMITTED 2022, AM
»Do Minimum - OPERATION - BASE + COMMITTED 2022, PM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, AM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM
»Do Minimum - OPERATION - BASE + COMMITTED 2028, AM
»Do Minimum - OPERATION - BASE + COMMITTED 2028, PM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, AM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM
»Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, AM
»Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Do Minimum - OPERATION - BASE 2018								
Arm 1	0.0	1.59	0.04	A	0.0	1.68	0.03	A
Arm 2	0.2	2.19	0.16	A	0.1	2.35	0.05	A
Arm 3	0.1	2.36	0.04	A	0.3	2.48	0.19	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Do Minimum - OPERATION - BASE + COMMITTED 2022								
Arm 1	0.1	1.63	0.05	A	0.0	1.71	0.03	A
Arm 2	0.2	2.30	0.18	A	0.1	2.33	0.05	A
Arm 3	0.1	2.32	0.07	A	0.3	2.53	0.22	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022								
Arm 1	0.1	2.05	0.07	A	0.1	2.03	0.04	A
Arm 2	0.3	2.57	0.21	A	0.1	2.53	0.07	A
Arm 3	0.1	2.40	0.08	A	0.3	2.57	0.22	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Do Minimum - OPERATION - BASE + COMMITTED 2028								
Arm 1	0.1	1.64	0.05	A	0.0	1.71	0.03	A
Arm 2	0.3	2.32	0.19	A	0.1	2.36	0.06	A
Arm 3	0.1	2.34	0.08	A	0.3	2.58	0.23	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028								
Arm 1	0.1	2.05	0.08	A	0.1	2.04	0.04	A
Arm 2	0.3	2.59	0.22	A	0.1	2.55	0.07	A
Arm 3	0.1	2.41	0.08	A	0.3	2.61	0.23	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026								
Arm 1	0.5	2.25	0.35	A	0.3	2.37	0.18	A
Arm 2	0.7	3.32	0.40	A	0.2	2.72	0.10	A
Arm 3	0.2	2.35	0.14	A	0.8	3.44	0.43	A
Arm 4	0.0	0.00	0.00	A	0.0	4.21	0.01	A

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

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/08/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CLEASBYD
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - BASE 2018	AM	ONE HOUR	06:45	08:15	15
D2	OPERATION - BASE 2018	PM	ONE HOUR	15:45	17:15	15
D3	OPERATION - BASE + COMMITTED 2022	AM	ONE HOUR	06:45	08:15	15
D4	OPERATION - BASE + COMMITTED 2022	PM	ONE HOUR	15:45	17:15	15
D5	OPERATION - BASE + COMMITTED + DEVELOPMENT 2022	AM	ONE HOUR	06:45	08:15	15
D6	OPERATION - BASE + COMMITTED + DEVELOPMENT 2022	PM	ONE HOUR	15:45	17:15	15
D7	OPERATION - BASE + COMMITTED 2028	AM	ONE HOUR	06:45	08:15	15
D8	OPERATION - BASE + COMMITTED 2028	PM	ONE HOUR	15:45	17:15	15
D9	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028	AM	ONE HOUR	06:45	08:15	15
D10	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028	PM	ONE HOUR	15:45	17:15	15
D11	OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026	AM	ONE HOUR	06:45	08:15	15
D12	OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Do Minimum	100.000

Do Minimum - OPERATION - BASE 2018, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Hobson Way NB Approach	
2	Kiln Lane EB Approach	
3	Laporte Road SB Approach	
4	Unnamed Access	

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)	Exit only
1	7.30	8.31	7.0	95.0	45.7	23.2	
2	6.21	8.60	6.1	21.5	45.5	26.0	
3	6.34	6.57	6.4	36.9	45.5	25.1	
4	4.30	5.09	1.1	63.1	45.5	27.3	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.813	2572
2	0.736	2239
3	0.708	2061
4	0.587	1435

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - BASE 2018	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	96	100.000
2		✓	313	100.000
3		✓	79	100.000
4		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	21	75	0
	2	90	5	215	3
	3	15	63	0	1
	4	0	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	33	1	0
	2	6	0	15	0
	3	0	33	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.04	1.59	0.0	A
2	0.16	2.19	0.2	A
3	0.04	2.36	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	72	51	2530	0.029	72	0.0	1.560	A
2	236	56	2198	0.107	235	0.1	2.051	A
3	59	74	2009	0.030	59	0.0	2.302	A
4	0	130	1358	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	86	61	2522	0.034	86	0.0	1.574	A
2	281	67	2190	0.129	281	0.2	2.109	A
3	71	88	1998	0.036	71	0.0	2.328	A
4	0	155	1343	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	106	75	2511	0.042	106	0.0	1.594	A
2	345	83	2179	0.158	344	0.2	2.195	A
3	87	108	1984	0.044	87	0.1	2.365	A
4	0	190	1323	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	106	75	2511	0.042	106	0.0	1.594	A
2	345	83	2179	0.158	345	0.2	2.195	A
3	87	108	1984	0.044	87	0.1	2.365	A
4	0	190	1323	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	86	61	2522	0.034	86	0.0	1.577	A
2	281	67	2190	0.129	282	0.2	2.111	A
3	71	88	1998	0.036	71	0.0	2.328	A
4	0	156	1343	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	72	51	2530	0.029	72	0.0	1.560	A
2	236	56	2198	0.107	236	0.1	2.051	A
3	59	74	2008	0.030	60	0.0	2.302	A
4	0	130	1358	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE 2018, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	OPERATION - BASE 2018	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	56	100.000
2		✓	100	100.000
3		✓	344	100.000
4		✓	3	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	
	1	0	44	11	1	
	2	24	1	75	0	
	3	111	233	0	0	
	4	1	2	0	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1	2	3	4
	1	0	7	10	0
	2	35	0	40	0
	3	1	22	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.03	1.68	0.0	A
2	0.05	2.35	0.1	A
3	0.19	2.48	0.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	42	176	2429	0.017	42	0.0	1.619	A
2	75	9	2233	0.034	75	0.0	2.305	A
3	259	20	2047	0.127	258	0.2	2.301	A
4	0	277	1272	0.000	0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	50	210	2401	0.021	50	0.0	1.644	A
2	90	11	2231	0.040	90	0.1	2.323	A
3	309	23	2044	0.151	309	0.2	2.372	A
4	0	332	1240	0.000	0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	62	257	2362	0.026	62	0.0	1.680	A
2	110	13	2230	0.049	110	0.1	2.347	A
3	379	29	2040	0.186	379	0.3	2.476	A
4	0	406	1196	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	62	258	2362	0.026	62	0.0	1.680	A
2	110	13	2230	0.049	110	0.1	2.347	A
3	379	29	2040	0.186	379	0.3	2.476	A
4	0	406	1196	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	50	211	2401	0.021	50	0.0	1.644	A
2	90	11	2231	0.040	90	0.1	2.325	A
3	309	23	2044	0.151	309	0.2	2.372	A
4	0	332	1240	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	42	176	2428	0.017	42	0.0	1.622	A
2	75	9	2233	0.034	75	0.0	2.306	A
3	259	20	2047	0.127	259	0.2	2.303	A
4	0	278	1272	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	OPERATION - BASE + COMMITTED 2022	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	101	100.000
2		✓	347	100.000
3		✓	131	100.000
4		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	
	1	0	22	79	0	
	2	95	5	244	3	
	3	16	114	0	1	
	4	0	1	0	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	
	1	0	32	1	0
	2	6	0	19	0
	3	0	22	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	1.63	0.1	A
2	0.18	2.30	0.2	A
3	0.07	2.32	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	76	89	2499	0.030	76	0.0	1.580	A
2	261	59	2196	0.119	261	0.2	2.133	A
3	99	77	2006	0.049	98	0.1	2.238	A
4	0	173	1333	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	91	107	2485	0.037	91	0.0	1.599	A
2	312	71	2187	0.143	312	0.2	2.200	A
3	118	93	1995	0.059	118	0.1	2.274	A
4	0	207	1313	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	111	131	2465	0.045	111	0.1	1.627	A
2	382	87	2175	0.176	382	0.2	2.301	A
3	144	113	1980	0.073	144	0.1	2.325	A
4	0	253	1286	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	111	131	2465	0.045	111	0.1	1.627	A
2	382	87	2175	0.176	382	0.2	2.301	A
3	144	113	1980	0.073	144	0.1	2.325	A
4	0	253	1286	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	91	107	2485	0.037	91	0.0	1.602	A
2	312	71	2187	0.143	312	0.2	2.201	A
3	118	93	1995	0.059	118	0.1	2.276	A
4	0	207	1313	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	76	90	2499	0.030	76	0.0	1.580	A
2	261	59	2196	0.119	261	0.2	2.135	A
3	99	78	2006	0.049	99	0.1	2.240	A
4	0	173	1333	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	OPERATION - BASE + COMMITTED 2022	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	59	100.000
2		✓	106	100.000
3		✓	402	100.000
4		✓	3	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	
	1	0	46	12	1	
	2	25	1	80	0	
	3	117	285	0	0	
	4	1	2	0	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	
	1	0	7	9	0
	2	33	0	39	0
	3	1	18	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.03	1.71	0.0	A
2	0.05	2.33	0.1	A
3	0.22	2.53	0.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	44	215	2397	0.019	44	0.0	1.640	A
2	80	10	2232	0.036	80	0.1	2.291	A
3	303	20	2046	0.148	302	0.2	2.320	A
4	0	321	1246	0.000	0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	53	257	2363	0.022	53	0.0	1.671	A
2	95	12	2231	0.043	95	0.1	2.309	A
3	361	24	2043	0.177	361	0.2	2.407	A
4	0	385	1209	0.000	0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	65	315	2316	0.028	65	0.0	1.714	A
2	117	14	2229	0.052	117	0.1	2.335	A
3	443	30	2040	0.217	442	0.3	2.535	A
4	0	471	1158	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	65	315	2316	0.028	65	0.0	1.714	A
2	117	14	2229	0.052	117	0.1	2.335	A
3	443	30	2040	0.217	443	0.3	2.535	A
4	0	471	1158	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	53	257	2363	0.022	53	0.0	1.674	A
2	95	12	2231	0.043	95	0.1	2.311	A
3	361	24	2043	0.177	362	0.2	2.407	A
4	0	385	1209	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	44	215	2397	0.019	44	0.0	1.643	A
2	80	10	2232	0.036	80	0.1	2.293	A
3	303	20	2046	0.148	303	0.2	2.324	A
4	0	322	1245	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	OPERATION - BASE + COMMITTED + DEVELOPMENT 2022	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	167	100.000
2		✓	422	100.000
3		✓	131	100.000
4		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	88	79	0
	2	170	5	244	3
	3	16	114	0	1
	4	0	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	75	1	0
	2	29	0	19	0
	3	0	22	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.07	2.05	0.1	A
2	0.21	2.57	0.3	A
3	0.08	2.40	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	126	89	2499	0.050	125	0.1	1.970	A
2	318	59	2196	0.145	317	0.2	2.343	A
3	99	134	1966	0.050	98	0.1	2.286	A
4	0	229	1300	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	150	107	2485	0.060	150	0.1	2.003	A
2	379	71	2187	0.173	379	0.3	2.436	A
3	118	160	1947	0.060	118	0.1	2.333	A
4	0	274	1274	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	184	131	2465	0.075	184	0.1	2.050	A
2	465	87	2175	0.214	464	0.3	2.574	A
3	144	196	1922	0.075	144	0.1	2.401	A
4	0	336	1238	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	184	131	2465	0.075	184	0.1	2.050	A
2	465	87	2175	0.214	465	0.3	2.574	A
3	144	196	1922	0.075	144	0.1	2.401	A
4	0	336	1238	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	150	107	2485	0.060	150	0.1	2.005	A
2	379	71	2187	0.173	380	0.3	2.437	A
3	118	160	1947	0.060	118	0.1	2.335	A
4	0	274	1274	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	126	90	2499	0.050	126	0.1	1.971	A
2	318	60	2196	0.145	318	0.2	2.346	A
3	99	134	1966	0.050	99	0.1	2.288	A
4	0	230	1300	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	OPERATION - BASE + COMMITTED + DEVELOPMENT 2022	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	87	100.000
2		✓	132	100.000
3		✓	402	100.000
4		✓	3	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	74	12	1
	2	51	1	80	0
	3	117	285	0	0
	4	1	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	29	9	0
	2	61	0	39	0
	3	1	18	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.04	2.03	0.1	A
2	0.07	2.53	0.1	A
3	0.22	2.57	0.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	65	215	2397	0.027	65	0.0	1.936	A
2	99	10	2232	0.045	99	0.1	2.468	A
3	303	40	2032	0.149	302	0.2	2.338	A
4	0	341	1235	0.000	0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	78	257	2363	0.033	78	0.0	1.975	A
2	119	12	2231	0.053	119	0.1	2.492	A
3	361	48	2027	0.178	361	0.2	2.430	A
4	0	408	1195	0.000	0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	96	315	2316	0.041	96	0.1	2.033	A
2	145	14	2229	0.065	145	0.1	2.527	A
3	443	58	2019	0.219	442	0.3	2.567	A
4	0	500	1141	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	96	315	2316	0.041	96	0.1	2.033	A
2	145	14	2229	0.065	145	0.1	2.527	A
3	443	58	2019	0.219	443	0.3	2.567	A
4	0	500	1141	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	78	257	2363	0.033	78	0.0	1.977	A
2	119	12	2231	0.053	119	0.1	2.493	A
3	361	48	2027	0.178	362	0.2	2.431	A
4	0	408	1195	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	65	215	2397	0.027	66	0.0	1.938	A
2	99	10	2232	0.045	99	0.1	2.470	A
3	303	40	2032	0.149	303	0.2	2.341	A
4	0	342	1234	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	OPERATION - BASE + COMMITTED 2028	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	107	100.000
2		✓	367	100.000
3		✓	136	100.000
4		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	23	84	0
	2	101	6	257	3
	3	17	118	0	1
	4	0	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	
	1	0	35	1	0
	2	6	0	18	0
	3	0	22	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	1.64	0.1	A
2	0.19	2.32	0.3	A
3	0.08	2.34	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	81	93	2496	0.032	80	0.0	1.590	A
2	276	63	2193	0.126	276	0.2	2.139	A
3	102	83	2002	0.051	102	0.1	2.246	A
4	0	182	1328	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	96	111	2481	0.039	96	0.0	1.611	A
2	330	75	2184	0.151	330	0.2	2.212	A
3	122	99	1991	0.061	122	0.1	2.283	A
4	0	217	1307	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	118	136	2461	0.048	118	0.1	1.639	A
2	404	92	2171	0.186	404	0.3	2.320	A
3	150	121	1975	0.076	150	0.1	2.337	A
4	0	266	1278	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	118	137	2461	0.048	118	0.1	1.639	A
2	404	92	2171	0.186	404	0.3	2.320	A
3	150	121	1975	0.076	150	0.1	2.337	A
4	0	266	1278	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	96	112	2481	0.039	96	0.0	1.611	A
2	330	76	2184	0.151	330	0.2	2.212	A
3	122	99	1991	0.061	122	0.1	2.285	A
4	0	218	1307	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	81	93	2496	0.032	81	0.0	1.593	A
2	276	63	2193	0.126	276	0.2	2.140	A
3	102	83	2002	0.051	102	0.1	2.248	A
4	0	182	1328	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	OPERATION - BASE + COMMITTED 2028	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	62	100.000
2		✓	113	100.000
3		✓	424	100.000
4		✓	3	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	
	1	0	49	12	1	
	2	27	1	85	0	
	3	124	300	0	0	
	4	1	2	0	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	
	1	0	6	9	0
	2	37	0	39	0
	3	1	18	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.03	1.71	0.0	A
2	0.06	2.36	0.1	A
3	0.23	2.58	0.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	47	226	2388	0.020	47	0.0	1.636	A
2	85	10	2232	0.038	85	0.1	2.314	A
3	319	22	2045	0.156	318	0.2	2.343	A
4	0	339	1235	0.000	0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	56	270	2352	0.024	56	0.0	1.668	A
2	102	12	2231	0.046	102	0.1	2.333	A
3	381	26	2042	0.187	381	0.3	2.436	A
4	0	406	1196	0.000	0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	68	331	2302	0.030	68	0.0	1.714	A
2	124	14	2229	0.056	124	0.1	2.361	A
3	467	32	2038	0.229	467	0.3	2.576	A
4	0	497	1143	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	68	331	2302	0.030	68	0.0	1.714	A
2	124	14	2229	0.056	124	0.1	2.361	A
3	467	32	2038	0.229	467	0.3	2.576	A
4	0	498	1143	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	56	271	2352	0.024	56	0.0	1.668	A
2	102	12	2231	0.046	102	0.1	2.333	A
3	381	26	2042	0.187	381	0.3	2.439	A
4	0	407	1196	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	47	227	2387	0.020	47	0.0	1.639	A
2	85	10	2232	0.038	85	0.1	2.316	A
3	319	22	2045	0.156	319	0.2	2.345	A
4	0	341	1235	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	173	100.000
2		✓	441	100.000
3		✓	136	100.000
4		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	89	84	0
	2	175	6	257	3
	3	17	118	0	1
	4	0	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	75	1	0
	2	28	0	18	0
	3	0	22	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.08	2.05	0.1	A
2	0.22	2.59	0.3	A
3	0.08	2.41	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	130	93	2496	0.052	130	0.1	1.963	A
2	332	63	2193	0.151	331	0.2	2.344	A
3	102	138	1963	0.052	102	0.1	2.293	A
4	0	237	1295	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	156	111	2481	0.063	155	0.1	1.997	A
2	396	75	2184	0.182	396	0.3	2.443	A
3	122	165	1944	0.063	122	0.1	2.342	A
4	0	284	1268	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	190	136	2461	0.077	190	0.1	2.046	A
2	486	92	2171	0.224	485	0.3	2.590	A
3	150	202	1917	0.078	150	0.1	2.413	A
4	0	348	1231	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	190	137	2461	0.077	190	0.1	2.046	A
2	486	92	2171	0.224	486	0.3	2.590	A
3	150	203	1917	0.078	150	0.1	2.414	A
4	0	348	1230	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	156	112	2481	0.063	156	0.1	1.998	A
2	396	76	2184	0.182	397	0.3	2.443	A
3	122	166	1943	0.063	122	0.1	2.343	A
4	0	284	1268	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	130	93	2496	0.052	130	0.1	1.964	A
2	332	63	2193	0.151	332	0.2	2.348	A
3	102	139	1963	0.052	102	0.1	2.294	A
4	0	238	1295	0.000	0	0.0	0.000	A

Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	90	100.000
2		✓	139	100.000
3		✓	424	100.000
4		✓	3	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	77	12	1
	2	53	1	85	0
	3	124	300	0	0
	4	1	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	28	9	0
	2	63	0	39	0
	3	1	18	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.04	2.04	0.1	A
2	0.07	2.55	0.1	A
3	0.23	2.61	0.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	68	226	2388	0.028	68	0.0	1.934	A
2	105	10	2232	0.047	104	0.1	2.484	A
3	319	41	2031	0.157	318	0.2	2.362	A
4	0	359	1224	0.000	0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	81	270	2352	0.034	81	0.0	1.976	A
2	125	12	2231	0.056	125	0.1	2.509	A
3	381	49	2026	0.188	381	0.3	2.461	A
4	0	429	1183	0.000	0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	99	331	2302	0.043	99	0.1	2.037	A
2	153	14	2229	0.069	153	0.1	2.545	A
3	467	61	2018	0.231	467	0.3	2.609	A
4	0	526	1126	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	99	331	2302	0.043	99	0.1	2.037	A
2	153	14	2229	0.069	153	0.1	2.545	A
3	467	61	2018	0.231	467	0.3	2.609	A
4	0	526	1126	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	81	271	2352	0.034	81	0.0	1.978	A
2	125	12	2231	0.056	125	0.1	2.511	A
3	381	49	2026	0.188	381	0.3	2.464	A
4	0	430	1182	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	68	227	2387	0.028	68	0.0	1.935	A
2	105	10	2232	0.047	105	0.1	2.486	A
3	319	41	2031	0.157	319	0.2	2.364	A
4	0	360	1223	0.000	0	0.0	0.000	A

Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	765	100.000
2		✓	666	100.000
3		✓	222	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	7	245	513	0
	2	352	3	309	2
	3	76	146	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.35	2.25	0.5	A
2	0.40	3.32	0.7	A
3	0.14	2.35	0.2	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	576	112	2481	0.232	575	0.3	1.888	A
2	501	391	1952	0.257	500	0.3	2.477	A
3	167	273	1867	0.090	167	0.1	2.117	A
4	0	439	1177	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	688	134	2463	0.279	687	0.4	2.027	A
2	599	467	1895	0.316	598	0.5	2.775	A
3	200	327	1829	0.109	199	0.1	2.208	A
4	0	525	1127	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	842	164	2438	0.345	842	0.5	2.255	A
2	733	572	1818	0.403	732	0.7	3.311	A
3	244	400	1777	0.138	244	0.2	2.348	A
4	0	642	1058	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	842	164	2438	0.345	842	0.5	2.255	A
2	733	573	1818	0.403	733	0.7	3.318	A
3	244	401	1777	0.138	244	0.2	2.348	A
4	0	643	1057	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	688	134	2463	0.279	688	0.4	2.030	A
2	599	468	1895	0.316	600	0.5	2.782	A
3	200	328	1829	0.109	200	0.1	2.211	A
4	0	526	1126	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	576	112	2480	0.232	576	0.3	1.892	A
2	501	392	1951	0.257	502	0.3	2.486	A
3	167	274	1866	0.090	167	0.1	2.118	A
4	0	440	1176	0.000	0	0.0	0.000	A

Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - OPERATION - BASE + COMMITTED + DEVELOPMENT 2022, PM	Demand Set 6: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D12 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 12: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	379	100.000
2		✓	198	100.000
3		✓	773	100.000
4		✓	6	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	366	13	0
	2	117	1	80	0
	3	475	295	0	3
	4	1	4	1	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	25	9	0
	2	63	0	39	0
	3	1	18	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.18	2.37	0.3	A
2	0.10	2.72	0.2	A
3	0.43	3.44	0.8	A
4	0.01	4.21	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	285	226	2388	0.119	285	0.2	2.129	A
2	149	11	2232	0.067	149	0.1	2.625	A
3	582	89	1998	0.291	580	0.4	2.710	A
4	5	667	1043	0.004	4	0.0	3.464	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	341	270	2352	0.145	341	0.2	2.225	A
2	178	13	2230	0.080	178	0.1	2.664	A
3	695	106	1986	0.350	694	0.6	2.977	A
4	5	798	966	0.006	5	0.0	3.745	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	417	331	2303	0.181	417	0.3	2.374	A
2	218	15	2228	0.098	218	0.2	2.720	A
3	851	130	1969	0.432	850	0.8	3.436	A
4	7	977	861	0.008	7	0.0	4.211	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	417	331	2302	0.181	417	0.3	2.374	A
2	218	15	2228	0.098	218	0.2	2.720	A
3	851	130	1969	0.432	851	0.8	3.441	A
4	7	978	861	0.008	7	0.0	4.214	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	341	271	2351	0.145	341	0.2	2.227	A
2	178	13	2230	0.080	178	0.1	2.664	A
3	695	106	1986	0.350	696	0.6	2.984	A
4	5	799	965	0.006	5	0.0	3.751	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	285	227	2387	0.120	285	0.2	2.130	A
2	149	11	2232	0.067	149	0.1	2.625	A
3	582	89	1998	0.291	583	0.4	2.719	A
4	5	669	1042	0.004	5	0.0	3.472	A

Junctions 9							
ARCADY 9 - Roundabout Module							
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Filename: 3.0 CONSTRUCTION LAPORTE ROAD R'ABOUT.j9

Path: \\UKLDS2PFPSW001.na.aecomnet.com\LE_PROJECTS\Transport Projects\60580855 - Project

Koala\Modelling\4_R'abouts\3.0_Laporte R'bout

Report generation date: 13/09/2018 15:28:37

- »Do Minimum - CONSTRUCTION - Base + Committed 2020, AM
- »Do Minimum - CONSTRUCTION - Base + Committed 2020, PM
- »Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2022, AM
- »Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2022, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Do Minimum - CONSTRUCTION - Base + Committed 2020								
Arm 1	0.0	1.63	0.04	A	0.0	1.71	0.03	A
Arm 2	0.2	2.25	0.17	A	0.1	2.36	0.05	A
Arm 3	0.1	2.27	0.07	A	0.3	2.52	0.21	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2022								
Arm 1	0.1	1.71	0.05	A	0.1	1.78	0.07	A
Arm 2	0.3	2.39	0.24	A	0.1	2.45	0.06	A
Arm 3	0.1	2.40	0.07	A	0.3	2.53	0.21	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/08/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CLEASBYD
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	CONSTRUCTION - Base + Committed 2020	AM	ONE HOUR	06:45	08:15	15
D2	CONSTRUCTION - Base + Committed 2020	PM	ONE HOUR	15:45	17:15	15
D3	CONSTRUCTION - Base + Committed + Peak of Construction 2022	AM	ONE HOUR	06:45	08:15	15
D4	CONSTRUCTION - Base + Committed + Peak of Construction 2022	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Do Minimum	100.000

Do Minimum - CONSTRUCTION - Base + Committed 2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Hobson Way NB Approach	
2	Kiln Lane EB Approach	
3	Laporte Road SB Approach	
4	Unnamed Access	

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)	Exit only
1	7.30	8.31	7.0	95.0	45.7	23.2	
2	6.21	8.60	6.1	21.5	45.5	26.0	
3	6.34	6.57	6.4	36.9	45.5	25.1	
4	4.30	5.09	1.1	63.1	45.5	27.3	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.813	2572
2	0.736	2239
3	0.708	2061
4	0.587	1435

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	CONSTRUCTION - Base + Committed 2020	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	99	100.000
2		✓	330	100.000
3		✓	125	100.000
4		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	22	77	0
	2	92	5	230	3
	3	15	109	0	1
	4	0	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	33	1	0
	2	6	0	17	0
	3	0	19	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.04	1.63	0.0	A
2	0.17	2.25	0.2	A
3	0.07	2.27	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	75	86	2502	0.030	74	0.0	1.581	A
2	248	58	2197	0.113	248	0.1	2.092	A
3	94	75	2007	0.047	94	0.1	2.185	A
4	0	166	1337	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	89	102	2488	0.036	89	0.0	1.600	A
2	297	69	2188	0.136	297	0.2	2.154	A
3	112	90	1997	0.056	112	0.1	2.218	A
4	0	199	1318	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	109	125	2470	0.044	109	0.0	1.626	A
2	363	85	2177	0.167	363	0.2	2.247	A
3	138	110	1983	0.069	138	0.1	2.266	A
4	0	243	1292	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	109	126	2470	0.044	109	0.0	1.626	A
2	363	85	2177	0.167	363	0.2	2.247	A
3	138	110	1983	0.069	138	0.1	2.266	A
4	0	243	1292	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	89	103	2488	0.036	89	0.0	1.600	A
2	297	69	2188	0.136	297	0.2	2.155	A
3	112	90	1997	0.056	112	0.1	2.220	A
4	0	199	1318	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	75	86	2502	0.030	75	0.0	1.584	A
2	248	58	2197	0.113	249	0.1	2.092	A
3	94	75	2007	0.047	94	0.1	2.185	A
4	0	166	1337	0.000	0	0.0	0.000	A

Do Minimum - CONSTRUCTION - Base + Committed 2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	CONSTRUCTION - Base + Committed 2020	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	57	100.000
2		✓	104	100.000
3		✓	393	100.000
4		✓	3	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	45	11	1
	2	25	1	78	0
	3	114	279	0	0
	4	1	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	7	10	0
	2	35	0	41	0
	3	1	18	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.03	1.71	0.0	A
2	0.05	2.36	0.1	A
3	0.21	2.52	0.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	43	210	2401	0.018	43	0.0	1.639	A
2	78	9	2233	0.035	78	0.1	2.321	A
3	296	20	2046	0.145	295	0.2	2.311	A
4	0	315	1250	0.000	0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	51	252	2367	0.022	51	0.0	1.669	A
2	93	11	2231	0.042	93	0.1	2.339	A
3	353	24	2043	0.173	353	0.2	2.395	A
4	0	376	1214	0.000	0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	63	308	2321	0.027	63	0.0	1.711	A
2	115	13	2230	0.051	114	0.1	2.364	A
3	433	30	2040	0.212	432	0.3	2.520	A
4	0	461	1164	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	63	308	2321	0.027	63	0.0	1.711	A
2	115	13	2230	0.051	115	0.1	2.364	A
3	433	30	2040	0.212	433	0.3	2.520	A
4	0	461	1164	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	51	252	2367	0.022	51	0.0	1.669	A
2	93	11	2231	0.042	94	0.1	2.341	A
3	353	24	2043	0.173	354	0.2	2.398	A
4	0	377	1213	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	43	211	2400	0.018	43	0.0	1.639	A
2	78	9	2233	0.035	78	0.1	2.321	A
3	296	20	2046	0.145	296	0.2	2.313	A
4	0	316	1249	0.000	0	0.0	0.000	A

Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	CONSTRUCTION - Base + Committed + Peak of Construction 2022	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	109	100.000
2		✓	465	100.000
3		✓	125	100.000
4		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	32	77	0
	2	227	5	230	3
	3	15	109	0	1
	4	0	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
	1	0	48	1	0
	2	5	0	17	0
	3	0	19	0	0
From	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	1.71	0.1	A
2	0.24	2.39	0.3	A
3	0.07	2.40	0.1	A
4	0.00	0.00	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	82	86	2502	0.033	82	0.0	1.656	A
2	350	58	2197	0.159	349	0.2	2.152	A
3	94	176	1936	0.049	94	0.1	2.270	A
4	0	267	1278	0.000	0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	98	102	2488	0.039	98	0.0	1.676	A
2	418	69	2188	0.191	418	0.3	2.246	A
3	112	211	1911	0.059	112	0.1	2.324	A
4	0	320	1247	0.000	0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	120	125	2470	0.049	120	0.1	1.705	A
2	512	85	2177	0.235	512	0.3	2.388	A
3	138	259	1878	0.073	138	0.1	2.403	A
4	0	392	1205	0.000	0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	120	126	2470	0.049	120	0.1	1.705	A
2	512	85	2177	0.235	512	0.3	2.389	A
3	138	259	1877	0.073	138	0.1	2.403	A
4	0	392	1205	0.000	0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	98	103	2488	0.039	98	0.0	1.676	A
2	418	69	2188	0.191	418	0.3	2.249	A
3	112	211	1911	0.059	112	0.1	2.325	A
4	0	320	1247	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	82	86	2502	0.033	82	0.0	1.658	A
2	350	58	2197	0.159	350	0.2	2.154	A
3	94	177	1935	0.049	94	0.1	2.272	A
4	0	268	1277	0.000	0	0.0	0.000	A

Do Minimum - CONSTRUCTION - Base + Committed + Peak of Construction 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	CONSTRUCTION - Base + Committed + Peak of Construction 2022	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	141	100.000
2		✓	114	100.000
3		✓	393	100.000
4		✓	3	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	129	11	1
	2	35	1	78	0
	3	114	279	0	0
	4	1	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	7	10	0
	2	50	0	41	0
	3	1	18	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.07	1.78	0.1	A
2	0.06	2.45	0.1	A
3	0.21	2.53	0.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	106	210	2401	0.044	106	0.0	1.680	A
2	86	9	2233	0.038	86	0.1	2.399	A
3	296	28	2041	0.145	295	0.2	2.318	A
4	0	322	1246	0.000	0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	127	252	2367	0.054	127	0.1	1.721	A
2	102	11	2231	0.046	102	0.1	2.419	A
3	353	33	2037	0.173	353	0.2	2.404	A
4	0	385	1208	0.000	0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	155	308	2321	0.067	155	0.1	1.780	A
2	126	13	2230	0.056	125	0.1	2.448	A
3	433	41	2032	0.213	432	0.3	2.532	A
4	0	472	1158	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	155	308	2321	0.067	155	0.1	1.780	A
2	126	13	2230	0.056	126	0.1	2.448	A
3	433	41	2032	0.213	433	0.3	2.532	A
4	0	472	1157	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	127	252	2367	0.054	127	0.1	1.721	A
2	102	11	2231	0.046	103	0.1	2.419	A
3	353	33	2037	0.173	354	0.2	2.405	A
4	0	386	1208	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	106	211	2400	0.044	106	0.0	1.681	A
2	86	9	2233	0.038	86	0.1	2.401	A
3	296	28	2041	0.145	296	0.2	2.322	A
4	0	323	1245	0.000	0	0.0	0.000	A

ANNEX 17: TRONDHEIM WAY / KILN LANE MODELLING OUTPUTS

Junctions 9
ARCADY 9 - Roundabout Module
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Filename: Operation Trondheim Way Rbt.j9

Path: \\UKLDS2PFPSW001.na.aecomnet.com\LE_PROJECTS\Transport Projects\60580855 - Project
Koala\Modelling\4_R'abouts\6.0_Trondheim Way R'bout

Report generation date: 30/10/2018 11:11:13

»OPERATION - Base 2018, AM
»OPERATION - Base 2018, PM
»OPERATION - Base + Committed 2022 , AM
»OPERATION - Base + Committed 2022, PM
»OPERATION - Base + Committed + Development 2022 , AM
»OPERATION - Base + Committed + Development 2022, PM
»OPERATION - Base + Committed 2028 , AM
»OPERATION - Base + Committed 2028, PM
»OPERATION - Base + Committed + Development 2028 , AM
»OPERATION - Base + Committed + Development 2028, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
OPERATION - Base 2018								
Arm 1	0.2	3.70	0.12	A	0.8	4.34	0.43	A
Arm 2	0.1	2.52	0.09	A	0.1	3.31	0.07	A
Arm 3	0.6	3.58	0.37	A	0.4	3.51	0.23	A
Arm 4	0.0	3.64	0.03	A	0.1	2.54	0.05	A
OPERATION - Base + Committed 2022								
Arm 1	0.2	3.86	0.13	A	1.0	4.77	0.47	A
Arm 2	0.1	2.59	0.10	A	0.1	3.52	0.08	A
Arm 3	0.8	3.96	0.42	A	0.5	3.66	0.26	A
Arm 4	0.1	3.83	0.03	A	0.1	2.59	0.05	A
OPERATION - Base + Committed + Development 2022								
Arm 1	0.4	4.32	0.18	A	1.1	5.07	0.49	A
Arm 2	0.1	2.68	0.10	A	0.1	3.58	0.08	A
Arm 3	1.0	4.50	0.47	A	0.5	3.83	0.27	A
Arm 4	0.1	3.99	0.03	A	0.1	2.62	0.05	A
OPERATION - Base + Committed 2028								
Arm 1	0.3	3.90	0.14	A	1.1	5.09	0.50	A
Arm 2	0.1	2.64	0.11	A	0.1	3.64	0.09	A
Arm 3	0.9	4.17	0.45	A	0.5	3.74	0.27	A
Arm 4	0.1	3.90	0.03	A	0.1	2.60	0.06	A
OPERATION - Base + Committed + Development 2028								
Arm 1	0.4	4.37	0.19	A	1.2	5.41	0.52	A
Arm 2	0.1	2.72	0.11	A	0.1	3.70	0.09	A
Arm 3	1.1	4.76	0.49	A	0.5	3.89	0.29	A
Arm 4	0.0	2.74	0.03	A	0.1	2.63	0.06	A

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	Trondheim Way Rbt
Location	
Site number	
Date	26/09/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\cleasbyd
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - Base 2018	AM	ONE HOUR	06:45	08:15	15
D2	OPERATION - Base 2018	PM	ONE HOUR	15:45	17:15	15
D3	OPERATION - Base + Committed 2022	AM	ONE HOUR	06:45	08:15	15
D4	OPERATION - Base + Committed 2022	PM	ONE HOUR	15:45	17:15	15
D5	OPERATION - Base + Committed + Development 2022	AM	ONE HOUR	06:45	08:15	15
D6	OPERATION - Base + Committed + Development 2022	PM	ONE HOUR	15:45	17:15	15
D7	OPERATION - Base + Committed 2028	AM	ONE HOUR	06:45	08:15	15
D8	OPERATION - Base + Committed 2028	PM	ONE HOUR	15:45	17:15	15
D9	OPERATION - Base + Committed + Development 2028	AM	ONE HOUR	06:45	08:15	15
D10	OPERATION - Base + Committed + Development 2028	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

OPERATION - Base 2018, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Kiln Lane	
2	North Moss Lane	
3	A1173	
4	untitled	

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)	Exit only
1	3.28	6.99	14.0	44.6	44.8	19.0	
2	4.06	7.65	10.4	33.2	44.8	14.5	
3	3.84	7.10	13.0	32.1	44.8	20.5	
4	4.46	8.23	15.6	54.3	44.8	21.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.649	1707
2	0.684	1875
3	0.663	1800
4	0.728	2116

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - Base 2018	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	175	100.000
2		✓	135	100.000
3		✓	580	100.000
4		✓	43	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	19	154	2
	2	59	0	63	13
	3	477	49	8	46
	4	10	3	29	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	38	50	100
	2	7	0	15	8
	3	10	7	0	14
	4	50	0	81	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.12	3.70	0.2	A
2	0.09	2.52	0.1	A
3	0.37	3.58	0.6	A
4	0.03	3.64	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	132	68	1663	0.079	131	0.1	3.503	A
2	102	145	1775	0.057	101	0.1	2.380	A
3	437	56	1762	0.248	435	0.4	2.979	A
4	32	445	1792	0.018	32	0.0	3.295	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	157	81	1654	0.095	157	0.2	3.583	A
2	121	174	1756	0.069	121	0.1	2.437	A
3	521	67	1755	0.297	521	0.5	3.206	A
4	39	533	1728	0.022	39	0.0	3.431	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	193	99	1642	0.117	193	0.2	3.699	A
2	149	213	1729	0.086	149	0.1	2.521	A
3	639	83	1745	0.366	638	0.6	3.572	A
4	47	652	1641	0.029	47	0.0	3.637	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	193	99	1642	0.117	193	0.2	3.700	A
2	149	214	1729	0.086	149	0.1	2.521	A
3	639	83	1745	0.366	639	0.6	3.575	A
4	47	653	1641	0.029	47	0.0	3.638	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	157	81	1654	0.095	157	0.2	3.584	A
2	121	175	1755	0.069	121	0.1	2.438	A
3	521	67	1755	0.297	522	0.5	3.212	A
4	39	534	1728	0.022	39	0.0	3.433	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	132	68	1662	0.079	132	0.1	3.504	A
2	102	146	1775	0.057	102	0.1	2.381	A
3	437	56	1762	0.248	437	0.4	2.988	A
4	32	447	1791	0.018	32	0.0	3.300	A

OPERATION - Base 2018, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	OPERATION - Base 2018	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	607	100.000
2		✓	94	100.000
3		✓	374	100.000
4		✓	84	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	135	459	13
	2	14	3	71	6
	3	215	107	5	47
	4	7	15	62	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	3	10	27
	2	60	0	22	20
	3	37	14	0	84
	4	60	13	23	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.43	4.34	0.8	A
2	0.07	3.31	0.1	A
3	0.23	3.51	0.4	A
4	0.05	2.54	0.1	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	457	144	1613	0.283	455	0.4	3.375	A
2	71	404	1598	0.044	71	0.1	2.955	A
3	282	27	1782	0.158	281	0.2	3.187	A
4	63	258	1928	0.033	63	0.0	2.382	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	546	172	1595	0.342	545	0.6	3.725	A
2	85	484	1544	0.055	84	0.1	3.093	A
3	336	32	1778	0.189	336	0.3	3.318	A
4	76	309	1891	0.040	75	0.1	2.446	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	668	211	1569	0.426	667	0.8	4.332	A
2	103	593	1469	0.070	103	0.1	3.304	A
3	412	40	1773	0.232	411	0.4	3.514	A
4	92	378	1841	0.050	92	0.1	2.541	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	668	211	1569	0.426	668	0.8	4.341	A
2	103	593	1469	0.070	103	0.1	3.306	A
3	412	40	1773	0.232	412	0.4	3.514	A
4	92	379	1840	0.050	92	0.1	2.541	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	546	173	1594	0.342	547	0.6	3.736	A
2	85	485	1543	0.055	85	0.1	3.098	A
3	336	32	1778	0.189	337	0.3	3.322	A
4	76	310	1891	0.040	76	0.1	2.449	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	457	145	1613	0.283	458	0.4	3.387	A
2	71	406	1597	0.044	71	0.1	2.960	A
3	282	27	1782	0.158	282	0.3	3.193	A
4	63	259	1927	0.033	63	0.0	2.383	A

OPERATION - Base + Committed 2022 , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	OPERATION - Base + Committed 2022	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	200	100.000
2		✓	150	100.000
3		✓	664	100.000
4		✓	46	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	20	178	2
	2	62	0	74	14
	3	548	59	8	49
	4	11	3	31	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	36	53	100
	2	7	0	16	7
	3	11	11	0	14
	4	50	0	82	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.13	3.86	0.2	A
2	0.10	2.59	0.1	A
3	0.42	3.96	0.8	A
4	0.03	3.83	0.1	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	151	77	1657	0.091	150	0.2	3.616	A
2	113	165	1762	0.064	113	0.1	2.428	A
3	500	59	1760	0.284	498	0.4	3.164	A
4	35	508	1746	0.020	35	0.0	3.409	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	180	92	1647	0.109	180	0.2	3.715	A
2	135	198	1740	0.078	135	0.1	2.495	A
3	597	71	1752	0.341	596	0.6	3.456	A
4	41	608	1674	0.025	41	0.0	3.575	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	220	112	1634	0.135	220	0.2	3.857	A
2	165	242	1709	0.097	165	0.1	2.593	A
3	731	87	1742	0.420	730	0.8	3.949	A
4	51	745	1574	0.032	51	0.1	3.830	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	220	112	1634	0.135	220	0.2	3.857	A
2	165	242	1709	0.097	165	0.1	2.593	A
3	731	87	1742	0.420	731	0.8	3.955	A
4	51	745	1574	0.032	51	0.1	3.832	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	180	92	1647	0.109	180	0.2	3.716	A
2	135	198	1739	0.078	135	0.1	2.495	A
3	597	71	1752	0.341	598	0.6	3.467	A
4	41	609	1673	0.025	41	0.0	3.581	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	151	77	1657	0.091	151	0.2	3.620	A
2	113	166	1762	0.064	113	0.1	2.431	A
3	500	60	1760	0.284	500	0.4	3.175	A
4	35	510	1745	0.020	35	0.0	3.415	A

OPERATION - Base + Committed 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	OPERATION - Base + Committed 2022	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	668	100.000
2		✓	107	100.000
3		✓	411	100.000
4		✓	88	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	142	512	14
	2	15	3	83	6
	3	234	123	5	49
	4	7	16	65	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	3	10	25
	2	55	0	26	20
	3	38	17	0	85
	4	60	13	23	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.47	4.77	1.0	A
2	0.08	3.52	0.1	A
3	0.26	3.66	0.5	A
4	0.05	2.59	0.1	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	503	159	1603	0.314	501	0.5	3.544	A
2	81	447	1569	0.051	80	0.1	3.096	A
3	309	29	1781	0.174	308	0.3	3.281	A
4	66	285	1909	0.035	66	0.0	2.408	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	601	190	1583	0.379	600	0.7	3.978	A
2	96	535	1509	0.064	96	0.1	3.263	A
3	369	34	1777	0.208	369	0.4	3.432	A
4	79	341	1868	0.042	79	0.1	2.481	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	735	233	1555	0.473	734	1.0	4.760	A
2	118	655	1427	0.083	118	0.1	3.521	A
3	453	42	1772	0.255	452	0.5	3.662	A
4	97	418	1812	0.053	97	0.1	2.587	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	735	233	1555	0.473	735	1.0	4.774	A
2	118	656	1426	0.083	118	0.1	3.523	A
3	453	42	1772	0.255	453	0.5	3.662	A
4	97	418	1812	0.053	97	0.1	2.587	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	601	191	1583	0.379	602	0.7	3.993	A
2	96	537	1508	0.064	96	0.1	3.266	A
3	369	34	1777	0.208	370	0.4	3.434	A
4	79	342	1867	0.042	79	0.1	2.481	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	503	160	1603	0.314	504	0.5	3.561	A
2	81	449	1567	0.051	81	0.1	3.100	A
3	309	29	1781	0.174	310	0.3	3.288	A
4	66	286	1908	0.035	66	0.0	2.411	A

OPERATION - Base + Committed + Development 2022 , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	OPERATION - Base + Committed + Development 2022	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	266	100.000
2		✓	150	100.000
3		✓	738	100.000
4		✓	46	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	20	244	2
	2	62	0	74	14
	3	622	59	8	49
	4	11	3	31	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	36	63	100
	2	7	0	16	7
	3	17	11	0	14
	4	50	0	82	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.18	4.32	0.4	A
2	0.10	2.68	0.1	A
3	0.47	4.50	1.0	A
4	0.03	3.99	0.1	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	200	76	1657	0.121	199	0.2	3.969	A
2	113	214	1728	0.065	113	0.1	2.479	A
3	556	59	1760	0.316	553	0.5	3.457	A
4	35	563	1706	0.020	34	0.0	3.491	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	239	92	1647	0.145	239	0.3	4.111	A
2	135	257	1699	0.079	135	0.1	2.559	A
3	663	71	1752	0.379	663	0.7	3.833	A
4	41	674	1625	0.025	41	0.0	3.684	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	293	112	1634	0.179	293	0.3	4.315	A
2	165	315	1660	0.100	165	0.1	2.679	A
3	813	87	1742	0.466	811	1.0	4.485	A
4	51	826	1515	0.033	51	0.1	3.985	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	293	112	1634	0.179	293	0.4	4.317	A
2	165	315	1659	0.100	165	0.1	2.679	A
3	813	87	1742	0.467	813	1.0	4.496	A
4	51	827	1514	0.033	51	0.1	3.988	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	239	92	1647	0.145	239	0.3	4.115	A
2	135	257	1699	0.079	135	0.1	2.562	A
3	663	71	1752	0.379	665	0.7	3.845	A
4	41	676	1624	0.025	41	0.0	3.691	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	200	77	1657	0.121	200	0.2	3.976	A
2	113	216	1727	0.065	113	0.1	2.482	A
3	556	60	1760	0.316	556	0.5	3.475	A
4	35	566	1704	0.020	35	0.0	3.496	A

OPERATION - Base + Committed + Development 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	OPERATION - Base + Committed + Development 2022	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	696	100.000
2		✓	107	100.000
3		✓	437	100.000
4		✓	88	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	142	540	14
	2	15	3	83	6
	3	260	123	5	49
	4	7	16	65	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
	1	0	3	13	25
	2	55	0	26	20
	3	43	17	0	85
From	4	60	13	23	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.49	5.07	1.1	A
2	0.08	3.58	0.1	A
3	0.27	3.83	0.5	A
4	0.05	2.62	0.1	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	524	159	1603	0.327	522	0.5	3.687	A
2	81	468	1555	0.052	80	0.1	3.126	A
3	329	29	1781	0.185	328	0.3	3.397	A
4	66	305	1894	0.035	66	0.0	2.427	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	626	190	1583	0.395	625	0.7	4.172	A
2	96	560	1491	0.064	96	0.1	3.303	A
3	393	34	1777	0.221	393	0.4	3.568	A
4	79	365	1851	0.043	79	0.1	2.504	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	766	233	1555	0.493	765	1.1	5.048	A
2	118	686	1406	0.084	118	0.1	3.579	A
3	481	42	1772	0.272	481	0.5	3.826	A
4	97	447	1791	0.054	97	0.1	2.619	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	766	233	1555	0.493	766	1.1	5.066	A
2	118	687	1405	0.084	118	0.1	3.581	A
3	481	42	1772	0.272	481	0.5	3.826	A
4	97	447	1791	0.054	97	0.1	2.619	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	626	191	1583	0.395	627	0.7	4.189	A
2	96	562	1490	0.065	96	0.1	3.306	A
3	393	34	1777	0.221	393	0.4	3.571	A
4	79	365	1850	0.043	79	0.1	2.507	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	524	160	1603	0.327	525	0.5	3.708	A
2	81	470	1553	0.052	81	0.1	3.130	A
3	329	29	1781	0.185	329	0.3	3.406	A
4	66	306	1893	0.035	66	0.0	2.430	A

OPERATION - Base + Committed 2028 , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	OPERATION - Base + Committed 2028	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	211	100.000
2		✓	163	100.000
3		✓	706	100.000
4		✓	47	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	21	188	2
	2	66	0	82	15
	3	579	67	9	51
	4	11	3	32	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	40	52	100
	2	6	0	17	7
	3	11	14	0	15
	4	43	0	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.14	3.90	0.3	A
2	0.11	2.64	0.1	A
3	0.45	4.17	0.9	A
4	0.03	3.90	0.1	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	159	84	1652	0.096	158	0.2	3.638	A
2	123	174	1756	0.070	122	0.1	2.454	A
3	532	63	1758	0.302	530	0.5	3.262	A
4	35	541	1722	0.021	35	0.0	3.436	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	190	101	1641	0.116	190	0.2	3.745	A
2	147	208	1732	0.085	146	0.1	2.527	A
3	635	75	1749	0.363	634	0.6	3.593	A
4	42	648	1645	0.026	42	0.0	3.617	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	232	123	1627	0.143	232	0.3	3.900	A
2	179	255	1700	0.106	179	0.1	2.635	A
3	777	92	1738	0.447	776	0.9	4.165	A
4	52	793	1539	0.034	52	0.1	3.898	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	232	123	1626	0.143	232	0.3	3.900	A
2	179	255	1700	0.106	179	0.1	2.635	A
3	777	92	1738	0.447	777	0.9	4.173	A
4	52	794	1538	0.034	52	0.1	3.900	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	190	101	1641	0.116	190	0.2	3.749	A
2	147	209	1732	0.085	147	0.1	2.528	A
3	635	76	1749	0.363	636	0.6	3.603	A
4	42	649	1644	0.026	42	0.0	3.620	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	159	84	1652	0.096	159	0.2	3.642	A
2	123	175	1755	0.070	123	0.1	2.455	A
3	532	63	1758	0.302	532	0.5	3.273	A
4	35	543	1721	0.021	35	0.0	3.440	A

OPERATION - Base + Committed 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	OPERATION - Base + Committed 2028	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	705	100.000
2		✓	118	100.000
3		✓	437	100.000
4		✓	94	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	150	541	14
	2	16	3	92	7
	3	248	131	6	52
	4	8	17	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	3	10	25
	2	64	0	26	17
	3	38	17	0	82
	4	50	12	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.50	5.09	1.1	A
2	0.09	3.64	0.1	A
3	0.27	3.74	0.5	A
4	0.06	2.60	0.1	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	531	170	1596	0.332	529	0.5	3.656	A
2	89	472	1552	0.057	89	0.1	3.164	A
3	329	30	1780	0.185	328	0.3	3.318	A
4	71	303	1896	0.037	71	0.0	2.405	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	634	203	1575	0.402	633	0.7	4.151	A
2	106	566	1488	0.071	106	0.1	3.349	A
3	393	36	1776	0.221	393	0.4	3.486	A
4	85	363	1852	0.046	84	0.1	2.483	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	776	249	1545	0.502	775	1.1	5.070	A
2	130	692	1401	0.093	130	0.1	3.641	A
3	481	44	1770	0.272	481	0.5	3.739	A
4	103	444	1793	0.058	103	0.1	2.598	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	776	249	1545	0.502	776	1.1	5.089	A
2	130	694	1400	0.093	130	0.1	3.643	A
3	481	44	1770	0.272	481	0.5	3.739	A
4	103	445	1792	0.058	103	0.1	2.599	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	634	203	1575	0.403	635	0.7	4.173	A
2	106	568	1487	0.071	106	0.1	3.353	A
3	393	36	1776	0.221	393	0.4	3.491	A
4	85	364	1851	0.046	85	0.1	2.486	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	531	170	1596	0.333	532	0.5	3.677	A
2	89	475	1550	0.057	89	0.1	3.168	A
3	329	30	1780	0.185	329	0.3	3.327	A
4	71	304	1895	0.037	71	0.0	2.407	A

OPERATION - Base + Committed + Development 2028 , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	OPERATION - Base + Committed + Development 2028	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	277	100.000
2		✓	163	100.000
3		✓	780	100.000
4		✓	47	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	21	254	2
	2	66	0	82	15
	3	653	67	9	51
	4	11	3	32	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	40	62	100
	2	6	0	17	7
	3	17	14	0	15
	4	43	0	0	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.19	4.37	0.4	A
2	0.11	2.72	0.1	A
3	0.49	4.76	1.1	A
4	0.03	2.74	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	209	84	1652	0.126	208	0.2	3.993	A
2	123	223	1722	0.071	122	0.1	2.506	A
3	587	63	1758	0.334	585	0.6	3.564	A
4	35	596	1682	0.021	35	0.0	2.375	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	249	101	1641	0.152	249	0.3	4.145	A
2	147	268	1692	0.087	146	0.1	2.593	A
3	701	75	1749	0.401	700	0.8	3.991	A
4	42	714	1597	0.026	42	0.0	2.517	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	305	123	1627	0.188	305	0.4	4.364	A
2	179	328	1651	0.109	179	0.1	2.724	A
3	859	92	1738	0.494	857	1.1	4.748	A
4	52	874	1480	0.035	52	0.0	2.739	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	305	123	1626	0.188	305	0.4	4.366	A
2	179	328	1650	0.109	179	0.1	2.724	A
3	859	92	1738	0.494	859	1.1	4.763	A
4	52	875	1479	0.035	52	0.0	2.740	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	249	101	1641	0.152	249	0.3	4.149	A
2	147	268	1691	0.087	147	0.1	2.597	A
3	701	76	1749	0.401	703	0.8	4.007	A
4	42	716	1595	0.026	42	0.0	2.521	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	209	84	1652	0.126	209	0.2	3.999	A
2	123	225	1721	0.071	123	0.1	2.507	A
3	587	63	1758	0.334	588	0.6	3.583	A
4	35	599	1680	0.021	35	0.0	2.379	A

OPERATION - Base + Committed + Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	OPERATION - Base + Committed + Development 2028	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	733	100.000
2		✓	118	100.000
3		✓	463	100.000
4		✓	94	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	150	569	14
	2	16	3	92	7
	3	274	131	6	52
	4	8	17	69	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1	2	3	4
	1	0	3	13	25
	2	64	0	26	17
	3	42	17	0	82
	4	50	12	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.52	5.41	1.2	A
2	0.09	3.70	0.1	A
3	0.29	3.89	0.5	A
4	0.06	2.63	0.1	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	552	170	1596	0.346	550	0.6	3.809	A
2	89	493	1537	0.058	89	0.1	3.195	A
3	349	30	1780	0.196	347	0.3	3.424	A
4	71	323	1881	0.038	71	0.0	2.424	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	659	203	1575	0.418	658	0.8	4.356	A
2	106	591	1471	0.072	106	0.1	3.392	A
3	416	36	1776	0.234	416	0.4	3.610	A
4	85	386	1835	0.046	84	0.1	2.507	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	807	249	1545	0.522	805	1.2	5.390	A
2	130	723	1380	0.094	130	0.1	3.702	A
3	510	44	1770	0.288	509	0.5	3.891	A
4	103	473	1772	0.058	103	0.1	2.631	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	807	249	1545	0.522	807	1.2	5.414	A
2	130	724	1379	0.094	130	0.1	3.705	A
3	510	44	1770	0.288	510	0.5	3.894	A
4	103	473	1772	0.058	103	0.1	2.631	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	659	203	1574	0.419	661	0.8	4.381	A
2	106	593	1469	0.072	106	0.1	3.396	A
3	416	36	1776	0.234	417	0.4	3.616	A
4	85	387	1834	0.046	85	0.1	2.508	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	552	170	1596	0.346	553	0.6	3.832	A
2	89	496	1535	0.058	89	0.1	3.202	A
3	349	30	1780	0.196	349	0.3	3.431	A
4	71	324	1880	0.038	71	0.0	2.428	A

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2018			
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Filename: Construction Trondheim Way Rbt.j9

Path: \\UKLDS2PFPSW001.na.aecomnet.com\LE_PROJECTS\Transport Projects\60580855 - Project

Koala\Modelling\4_R'abouts\6.0_Trondheim Way R'bout

Report generation date: 30/10/2018 11:32:19

»CONSTRUCTION - Base + Committed 2020, AM

»CONSTRUCTION - Base + Committed 2020, PM

»CONSTRUCTION - Base + Committed + Peak of Construction 2020 , AM

»CONSTRUCTION - Base + Committed + Peak of Construction 2020, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
CONSTRUCTION - Base + Committed 2020								
Arm 1	0.2	3.75	0.13	A	0.9	4.63	0.46	A
Arm 2	0.1	2.55	0.09	A	0.1	3.44	0.08	A
Arm 3	0.7	3.82	0.40	A	0.4	3.60	0.25	A
Arm 4	0.0	3.54	0.02	A	0.1	2.55	0.05	A
CONSTRUCTION - Base + Committed + Peak of Construction 2020								
Arm 1	0.2	3.86	0.14	A	1.2	5.20	0.52	A
Arm 2	0.1	2.58	0.09	A	0.1	3.62	0.08	A
Arm 3	1.0	4.38	0.49	A	0.5	3.66	0.25	A
Arm 4	0.1	4.03	0.03	A	0.1	2.56	0.05	A

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	Trondheim Way Rbt
Location	
Site number	
Date	26/09/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\cleasbyd
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	CONSTRUCTION - Base + Committed 2020	AM	ONE HOUR	06:45	08:15	15
D2	CONSTRUCTION - Base + Committed 2020	PM	ONE HOUR	15:45	17:15	15
D3	CONSTRUCTION - Base + Committed + Peak of Construction 2020	AM	ONE HOUR	06:45	08:15	15
D4	CONSTRUCTION - Base + Committed + Peak of Construction 2020	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

CONSTRUCTION - Base + Committed 2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Kiln Lane	
2	North Moss Lane	
3	A1173	
4	untitled	

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)	Exit only
1	3.28	6.99	14.0	44.6	44.8	19.0	
2	4.06	7.65	10.4	33.2	44.8	14.5	
3	3.84	7.10	13.0	32.1	44.8	20.5	
4	4.46	8.23	15.6	54.3	44.8	21.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.649	1707
2	0.684	1875
3	0.663	1800
4	0.728	2116

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	CONSTRUCTION - Base + Committed 2020	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	192	100.000
2		✓	142	100.000
3		✓	635	100.000
4		✓	30	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	20	170	2
	2	61	0	68	13
	3	527	53	8	47
	4	10	3	16	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	38	51	100
	2	7	0	16	8
	3	11	8	0	14
	4	50	0	81	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.13	3.75	0.2	A
2	0.09	2.55	0.1	A
3	0.40	3.82	0.7	A
4	0.02	3.54	0.0	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	145	61	1667	0.087	144	0.1	3.543	A
2	107	148	1774	0.060	107	0.1	2.401	A
3	478	58	1761	0.271	476	0.4	3.100	A
4	23	487	1762	0.013	23	0.0	3.182	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	173	73	1659	0.104	172	0.2	3.629	A
2	128	177	1754	0.073	128	0.1	2.461	A
3	571	69	1754	0.326	570	0.5	3.369	A
4	27	583	1692	0.016	27	0.0	3.324	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	211	89	1649	0.128	211	0.2	3.753	A
2	156	217	1727	0.091	156	0.1	2.549	A
3	699	85	1743	0.401	698	0.7	3.813	A
4	33	714	1597	0.021	33	0.0	3.540	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	211	89	1649	0.128	211	0.2	3.754	A
2	156	217	1727	0.091	156	0.1	2.549	A
3	699	85	1743	0.401	699	0.7	3.819	A
4	33	715	1596	0.021	33	0.0	3.541	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	173	73	1659	0.104	173	0.2	3.630	A
2	128	177	1754	0.073	128	0.1	2.462	A
3	571	69	1754	0.326	572	0.5	3.376	A
4	27	584	1691	0.016	27	0.0	3.326	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	145	61	1667	0.087	145	0.1	3.547	A
2	107	148	1773	0.060	107	0.1	2.402	A
3	478	58	1761	0.271	479	0.4	3.113	A
4	23	489	1760	0.013	23	0.0	3.185	A

CONSTRUCTION - Base + Committed 2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	CONSTRUCTION - Base + Committed 2020	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	652	100.000
2		✓	101	100.000
3		✓	395	100.000
4		✓	86	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	139	500	13
	2	14	3	78	6
	3	229	113	5	48
	4	7	15	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	3	10	27
	2	60	0	24	20
	3	38	15	0	85
	4	60	13	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.46	4.63	0.9	A
2	0.08	3.44	0.1	A
3	0.25	3.60	0.4	A
4	0.05	2.55	0.1	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	491	150	1609	0.305	489	0.5	3.488	A
2	76	437	1576	0.048	76	0.1	3.042	A
3	297	27	1782	0.167	296	0.3	3.242	A
4	65	273	1917	0.034	65	0.0	2.383	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	586	180	1590	0.369	586	0.6	3.894	A
2	91	523	1517	0.060	91	0.1	3.199	A
3	355	32	1778	0.200	355	0.3	3.385	A
4	77	327	1878	0.041	77	0.1	2.451	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	718	220	1564	0.459	717	0.9	4.615	A
2	111	640	1437	0.077	111	0.1	3.442	A
3	435	40	1773	0.245	435	0.4	3.598	A
4	95	400	1825	0.052	95	0.1	2.552	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	718	220	1564	0.459	718	0.9	4.627	A
2	111	641	1436	0.077	111	0.1	3.443	A
3	435	40	1773	0.245	435	0.4	3.599	A
4	95	401	1824	0.052	95	0.1	2.552	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	586	180	1590	0.369	587	0.6	3.909	A
2	91	524	1516	0.060	91	0.1	3.202	A
3	355	32	1778	0.200	355	0.3	3.389	A
4	77	328	1878	0.041	77	0.1	2.454	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	491	151	1609	0.305	491	0.5	3.504	A
2	76	439	1575	0.048	76	0.1	3.047	A
3	297	27	1782	0.167	298	0.3	3.249	A
4	65	274	1916	0.034	65	0.0	2.386	A

CONSTRUCTION - Base + Committed + Peak of Construction 2020 , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	CONSTRUCTION - Base + Committed + Peak of Construction 2020	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	202	100.000
2		✓	142	100.000
3		✓	768	100.000
4		✓	44	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	20	180	2
	2	61	0	68	13
	3	660	53	8	47
	4	10	3	30	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
	1	0	38	53	100
	2	7	0	16	8
	3	9	8	0	14
From	4	50	0	81	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.14	3.86	0.2	A
2	0.09	2.58	0.1	A
3	0.49	4.38	1.0	A
4	0.03	4.03	0.1	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	152	71	1660	0.092	151	0.2	3.617	A
2	107	166	1762	0.061	107	0.1	2.419	A
3	578	58	1761	0.328	576	0.5	3.309	A
4	33	587	1689	0.020	33	0.0	3.510	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	182	85	1651	0.110	181	0.2	3.715	A
2	128	199	1739	0.073	128	0.1	2.484	A
3	690	69	1754	0.394	690	0.7	3.690	A
4	40	702	1605	0.025	40	0.0	3.713	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	222	104	1639	0.136	222	0.2	3.856	A
2	156	243	1709	0.092	156	0.1	2.579	A
3	846	85	1743	0.485	844	1.0	4.363	A
4	48	860	1490	0.033	48	0.1	4.032	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	222	105	1639	0.136	222	0.2	3.856	A
2	156	243	1708	0.092	156	0.1	2.579	A
3	846	85	1743	0.485	846	1.0	4.375	A
4	48	861	1490	0.033	48	0.1	4.034	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	182	86	1651	0.110	182	0.2	3.717	A
2	128	199	1739	0.073	128	0.1	2.487	A
3	690	69	1754	0.394	692	0.7	3.702	A
4	40	704	1604	0.025	40	0.0	3.717	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	152	72	1660	0.092	152	0.2	3.621	A
2	107	167	1761	0.061	107	0.1	2.420	A
3	578	58	1761	0.328	579	0.5	3.326	A
4	33	589	1687	0.020	33	0.0	3.517	A

CONSTRUCTION - Base + Committed + Peak of Construction 2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	CONSTRUCTION - Base + Committed + Peak of Construction 2020	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	736	100.000
2		✓	101	100.000
3		✓	405	100.000
4		✓	86	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	139	584	13
	2	14	3	78	6
	3	239	113	5	48
	4	7	15	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
	1	0	3	10	27
	2	60	0	24	20
	3	40	15	0	85
From	4	60	13	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.52	5.20	1.2	A
2	0.08	3.62	0.1	A
3	0.25	3.66	0.5	A
4	0.05	2.56	0.1	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	554	150	1609	0.344	552	0.6	3.699	A
2	76	499	1533	0.050	76	0.1	3.131	A
3	305	27	1782	0.171	304	0.3	3.288	A
4	65	281	1912	0.034	65	0.0	2.390	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	662	180	1590	0.416	661	0.8	4.215	A
2	91	598	1466	0.062	91	0.1	3.319	A
3	364	32	1778	0.205	364	0.3	3.437	A
4	77	336	1872	0.041	77	0.1	2.460	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	810	220	1564	0.518	809	1.2	5.181	A
2	111	732	1374	0.081	111	0.1	3.613	A
3	446	40	1773	0.251	445	0.5	3.661	A
4	95	411	1817	0.052	95	0.1	2.563	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	810	220	1564	0.518	810	1.2	5.202	A
2	111	733	1373	0.081	111	0.1	3.616	A
3	446	40	1773	0.251	446	0.5	3.661	A
4	95	412	1816	0.052	95	0.1	2.564	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	662	180	1590	0.416	663	0.8	4.236	A
2	91	600	1464	0.062	91	0.1	3.325	A
3	364	32	1778	0.205	364	0.3	3.439	A
4	77	337	1871	0.041	77	0.1	2.463	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	554	151	1609	0.344	555	0.6	3.720	A
2	76	502	1531	0.050	76	0.1	3.138	A
3	305	27	1782	0.171	305	0.3	3.292	A
4	65	282	1911	0.034	65	0.0	2.393	A

ANNEX 18: A1173 / KILN LANE MODELLING OUTPUTS

Junctions 9				
ARCADY 9 - Roundabout Module				
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2018				
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Filename: 4.0 Kiln Lane ROUNDABOUT.j9

Path: \\UKLDS2PFPSW001.na.aecomnet.com\LE_PROJECTS\Transport Projects\60580855 - Project

Koala\Modelling\4_R'abouts\4.0_Kiln Lane R'about

Report generation date: 11/09/2018 15:36:32

»Do Minimum - OPERATION - BASE 2018, AM

»Do Minimum - OPERATION - BASE 2018, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Do Minimum - OPERATION - BASE 2018								
Arm 1	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 2	2.0	4.76	0.65	A	0.4	2.62	0.24	A
Arm 3	0.6	5.53	0.33	A	2.2	8.06	0.67	A
Arm 4	0.2	2.69	0.13	A	0.8	4.09	0.43	A

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

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/08/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CLEASBYD
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - BASE 2018	AM	ONE HOUR	06:45	08:15	15
D2	OPERATION - BASE 2018	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Do Minimum	100.000

Do Minimum - OPERATION - BASE 2018, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Unnamed Access	
2	A1173 EB Approach	
3	A1173 SB Approach	
4	Kiln Lane WB Approach	

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)	Exit only
1	3.50	5.10	5.3	19.7	43.2	13.5	
2	3.80	8.20	56.2	37.9	43.2	18.5	
3	3.40	7.90	7.9	49.7	43.2	15.0	
4	3.70	8.30	59.8	25.8	43.2	18.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.587	1381
2	0.782	2357
3	0.645	1636
4	0.779	2357

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - BASE 2018	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1	100.000
2		✓	1351	100.000
3		✓	362	100.000
4		✓	255	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	1	0	0
	2	0	2	740	609
	3	1	261	0	100
	4	0	187	68	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	0	0	0
	2	0	0	5	10
	3	0	25	0	20
	4	0	38	40	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.00	0.00	0.0	A
2	0.65	4.76	2.0	A
3	0.33	5.53	0.6	A
4	0.13	2.69	0.2	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	389	1153	0.000	0	0.0	0.000	A
2	1017	51	2317	0.439	1014	0.8	2.953	A
3	273	458	1340	0.203	271	0.3	4.155	A
4	192	198	2203	0.087	191	0.1	2.478	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	465	1108	0.000	0	0.0	0.000	A
2	1215	61	2309	0.526	1213	1.2	3.515	A
3	325	549	1282	0.254	325	0.4	4.642	A
4	229	237	2173	0.106	229	0.2	2.565	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	570	1046	0.000	0	0.0	0.000	A
2	1487	75	2299	0.647	1484	1.9	4.720	A
3	399	671	1203	0.331	398	0.6	5.516	A
4	281	290	2132	0.132	281	0.2	2.693	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	570	1046	0.000	0	0.0	0.000	A
2	1487	75	2299	0.647	1487	2.0	4.756	A
3	399	673	1202	0.332	399	0.6	5.531	A
4	281	291	2131	0.132	281	0.2	2.694	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	466	1107	0.000	0	0.0	0.000	A
2	1215	61	2309	0.526	1218	1.2	3.545	A
3	325	551	1281	0.254	326	0.4	4.661	A
4	229	238	2172	0.106	229	0.2	2.566	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	390	1152	0.000	0	0.0	0.000	A
2	1017	51	2317	0.439	1019	0.8	2.974	A
3	273	461	1339	0.204	273	0.3	4.171	A
4	192	199	2202	0.087	192	0.1	2.480	A

Do Minimum - OPERATION - BASE 2018, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	OPERATION - BASE 2018	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1	100.000
2		✓	483	100.000
3		✓	900	100.000
4		✓	665	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	1	0	0
	2	0	0	261	222
	3	0	746	1	153
	4	0	545	120	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	0	0	0
	2	0	0	17	37
	3	0	4	0	45
	4	0	10	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.00	0.00	0.0	A
2	0.24	2.62	0.4	A
3	0.67	8.06	2.2	A
4	0.43	4.09	0.8	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	1059	759	0.000	0	0.0	0.000	A
2	364	91	2286	0.159	363	0.2	2.346	A
3	678	167	1529	0.443	674	0.9	4.584	A
4	501	560	1922	0.261	499	0.4	2.828	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	1267	636	0.000	0	0.0	0.000	A
2	434	109	2272	0.191	434	0.3	2.455	A
3	809	199	1508	0.537	808	1.2	5.606	A
4	598	670	1836	0.326	597	0.5	3.249	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	1550	470	0.000	0	0.0	0.000	A
2	532	133	2253	0.236	531	0.4	2.622	A
3	991	244	1479	0.670	987	2.2	7.943	A
4	732	819	1719	0.426	731	0.8	4.070	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	1555	468	0.000	0	0.0	0.000	A
2	532	133	2253	0.236	532	0.4	2.622	A
3	991	244	1479	0.670	991	2.2	8.059	A
4	732	822	1717	0.426	732	0.8	4.087	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	1274	633	0.000	0	0.0	0.000	A
2	434	109	2272	0.191	435	0.3	2.459	A
3	809	200	1507	0.537	813	1.3	5.690	A
4	598	675	1832	0.326	599	0.5	3.269	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	1065	755	0.000	0	0.0	0.000	A
2	364	91	2286	0.159	364	0.2	2.348	A
3	678	167	1528	0.443	679	0.9	4.640	A
4	501	564	1918	0.261	501	0.4	2.843	A

Junctions 9
ARCADY 9 - Roundabout Module
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Filename: 4.0 OPERATION Kiln Lane ROUNDABOUT.j9

Path: \\UKLDS2PFPSW001.na.aecomnet.com\LE_PROJECTS\Transport Projects\60580855 - Project
Koala\Modelling\4_R'abouts\4.0 Kiln Lane Roundabout Proposed Mitigation

Report generation date: 30/10/2018 10:40:28

»Do Minimum - OPERATION - BASE + COMMITTED, 2022, AM
»Do Minimum - OPERATION - BASE + COMMITTED, 2022, PM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2022, AM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2022, PM
»Do Minimum - OPERATION - BASE + COMMITTED, 2028, AM
»Do Minimum - OPERATION - BASE + COMMITTED, 2028, PM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, AM
»Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM
»Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, AM
»Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Do Minimum - OPERATION - BASE + COMMITTED, 2022								
Arm 1	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 2	5.3	11.94	0.84	B	0.6	3.38	0.31	A
Arm 3	0.7	5.43	0.35	A	2.3	7.85	0.68	A
Arm 4	0.3	2.82	0.15	A	1.0	4.63	0.48	A
Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2022								
Arm 1	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 2	7.4	16.00	0.88	C	0.6	3.51	0.32	A
Arm 3	0.7	5.79	0.36	A	2.4	8.15	0.69	A
Arm 4	0.3	3.12	0.19	A	1.1	4.86	0.50	A
Do Minimum - OPERATION - BASE + COMMITTED, 2028								
Arm 1	0.0	5.72	0.02	A	0.1	11.29	0.10	B
Arm 2	9.3	19.72	0.90	C	0.7	3.69	0.35	A
Arm 3	0.8	6.02	0.39	A	3.2	10.25	0.75	B
Arm 4	0.3	2.92	0.17	A	1.3	5.50	0.54	A
Do Minimum - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028								
Arm 1	0.0	5.97	0.02	A	0.1	11.93	0.11	B
Arm 2	14.9	30.58	0.95	D	0.7	3.83	0.36	A
Arm 3	0.8	6.45	0.41	A	3.3	10.76	0.75	B
Arm 4	0.4	3.22	0.20	A	1.4	5.83	0.56	A
Do Minimum - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026								
Arm 1	0.0	3.51	0.02	A	0.1	6.14	0.06	A
Arm 2	2.5	6.42	0.72	A	0.4	2.61	0.28	A
Arm 3	0.7	4.66	0.42	A	1.9	6.43	0.66	A
Arm 4	0.1	2.00	0.12	A	0.4	3.08	0.28	A

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

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/08/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUCLEASBYD
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - BASE + COMMITTED, 2022	AM	ONE HOUR	06:45	08:15	15
D2	OPERATION - BASE + COMMITTED, 2022	PM	ONE HOUR	15:45	17:15	15
D3	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2022	AM	ONE HOUR	06:45	08:15	15
D4	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2022	PM	ONE HOUR	15:45	17:15	15
D5	OPERATION - BASE + COMMITTED, 2028	AM	ONE HOUR	06:45	08:15	15
D6	OPERATION - BASE + COMMITTED, 2028	PM	ONE HOUR	15:45	17:15	15
D7	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028	AM	ONE HOUR	06:45	08:15	15
D8	OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028	PM	ONE HOUR	15:45	17:15	15
D9	OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026	AM	ONE HOUR	06:45	08:15	15
D10	OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Do Minimum	100.000

Do Minimum - OPERATION - BASE + COMMITTED, 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D4 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2022, PM	Demand Set 4: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D8 - OPERATION - BASE + COMMITTED + DEVELOPMENT, 2028, PM	Demand Set 8: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?
Warning	Demand Sets	D10 - OPERATION WITH LINK ROAD - BASE + COMMITTED + DEVELOPMENT, 2026, PM	Demand Set 10: Scenario Name includes Time Period Name ('PM'). Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Unnamed Access	
2	A1173 EB Approach	
3	A1173 SB Approach	
4	Kiln Lane WB Approach	

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)	Exit only
1	3.65	4.50	12.6	21.0	49.2	10.8	
2	3.70	8.24	19.0	40.0	49.2	16.4	
3	3.25	7.99	12.3	31.0	49.2	14.8	
4	3.97	8.14	64.8	19.9	49.2	17.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.576	1409
2	0.697	2037
3	0.640	1742
4	0.748	2348

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	OPERATION - BASE + COMMITTED, 2022	AM	ONE HOUR	06:45	08:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1	100.000
2		✓	1506	100.000
3		✓	396	100.000
4		✓	293	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	1	0	0
	2	0	2	809	695
	3	1	289	0	106
	4	0	221	72	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	0	0	0
	2	0	0	5	12
	3	0	24	0	20
	4	0	40	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.00	0.00	0.0	A
2	0.84	11.94	5.3	B
3	0.35	5.43	0.7	A
4	0.15	2.82	0.3	A

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	438	1156	0.000	0	0.0	0.000	A
2	1134	54	1999	0.567	1128	1.4	4.440	A
3	298	522	1408	0.212	297	0.3	3.974	A
4	221	219	2184	0.101	220	0.2	2.561	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	525	1106	0.000	0	0.0	0.000	A
2	1354	65	1992	0.680	1350	2.2	6.036	A
3	356	625	1342	0.265	356	0.4	4.481	A
4	263	262	2152	0.122	263	0.2	2.663	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	642	1039	0.000	0	0.0	0.000	A
2	1658	79	1982	0.837	1647	5.2	11.238	B
3	436	762	1254	0.348	435	0.6	5.393	A
4	323	321	2108	0.153	322	0.3	2.817	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	643	1038	0.000	0	0.0	0.000	A
2	1658	79	1982	0.837	1657	5.3	11.935	B
3	436	767	1251	0.349	436	0.7	5.425	A
4	323	321	2107	0.153	323	0.3	2.818	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	0	526	1106	0.000	0	0.0	0.000	A
2	1354	65	1992	0.680	1366	2.3	6.332	A
3	356	632	1337	0.266	357	0.4	4.513	A
4	263	263	2151	0.122	264	0.2	2.665	A